

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
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1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 14.Aug.02	3. REPORT TYPE AND DATES COVERED MAJOR REPORT	
4. TITLE AND SUBTITLE SEPTEMBER 11TH AND THE SINGLE EUROPEAN SKY-DEVELOPING CONCEPTS OF AIRSPACE SOVERIGNTY			5. FUNDING NUMBERS	
6. AUTHOR(S) MAJ SHREWSBURY STEPHEN M				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) JA GENERAL SCHOOL ARMY			8. PERFORMING ORGANIZATION REPORT NUMBER CI02-128	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) THE DEPARTMENT OF THE AIR FORCE AFIT/CIA, BLDG 125 2950 P STREET WPAFB OH 45433			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION AVAILABILITY STATEMENT Unlimited distribution In Accordance With AFI 35-205/AFIT Sup 1			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words)				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> DISTRIBUTION STATEMENT A Approved for Public Release Distribution Unlimited </div> <div style="font-size: 2em; font-weight: bold;">20020829 044</div> </div>				
14. SUBJECT TERMS			15. NUMBER OF PAGES 59	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT	

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I hope that you will not dally with the thought of creating great blocks of closed air, thereby tracing in the sky the conditions of possible future wars. I know you will see to it that the air, which God gave to everyone, shall not become the means of domination over anyone.²

I. Introduction

The traditional concept of sovereignty, the power of states to regulate their internal affairs without foreign interference, has been evolving for centuries. Change has, at times, been extremely slow—at other times, rapid. As technology and economic development have exponentially increased in the twentieth century, so have strains on the traditional ideas of sovereignty. Prior to the advent of air power, the conceptualization of sovereignty was primarily land and sea based. This conception had become somewhat entrenched with little incentive for change. With the development of aerospace technologies, a catalyst formed that speeded up development of modern concepts of airspace sovereignty. These developments coincided with general changes in conceptions of sovereignty—changes that are accelerating as the global environment rapidly develops.

The present global economy is producing great pressure on leading states to develop new ideas about sovereignty over airspace in order to keep pace with the world economic growth and has sparked a debate about the evolution of airspace sovereignty. The oft-stated rule that a state has absolute airspace sovereignty *supra* adjacent to its territory abounds.³

² President Franklin Roosevelt, Message to the Chicago Aviation Conference of 1944, *quoted in* WENCESLAS J. WAGNER, *INTERNATIONAL AIR TRANSPORTATION AS AFFECTED BY STATE SOVEREIGNTY* 93 (1970).

³ Many texts and articles on the subject of air law begin with this pronouncement taken from the “complete and exclusive” sovereignty language of Article 1 of the Convention on International Civil Aviation, *opened for signature*, Dec. 7, 1944, *entered into force*, Apr. 4, 1947, T.I.A.S. No. 1591, 15 U.N.T.S. 295. For purposes of this paper, the word “absolute” is used to reflect the totality of the “complete and exclusive” language.

Nonetheless, in spite of this near knee-jerk repeat of the “settled” rule of absolute sovereignty over territorial airspace, changes in the understanding and the characterizations of airspace sovereignty have marched on in steady fashion. The tragic events of September 11, 2001 will have profound effects on unfolding trends, but the move towards a different kind of airspace sovereignty regime will continue as economic and other forces drive change.

This paper begins by discussing early conceptions of state sovereignty as related to the air, sea, rivers, and the rights of innocent passage and commerce, with a review of the historical development of airspace sovereignty. The paper then reviews how the advent of airspace transportation impacted these concepts in fundamental ways as the twentieth century air transportation system developed. Next, the paper will discuss the current airspace sovereignty regime in the United States and how U.S. law currently regulates airspace with regard to national security issues, including control of contiguous airspace and the legal right of the United States to shoot down intruding aircraft. Current, worldwide trends towards relinquishing airspace sovereignty will be examined and reveal continued movement towards a global air economy, open skies, and regional consolidation of national airspaces such as the Single European Sky. The paper argues a continuing trend away from the absolute airspace sovereignty regime towards something less is occurring. The paper will also discuss the impact of the events of September 11th and their likely effect on these current trends. The paper will assert that despite economic pressure on states to release some airspace sovereignty by delegating control to other entities, September 11th will dramatically affect some previously emerging trends in light of a new reemphasis on national security concerns,

Although the word “absolute” occasionally carries negative connotations in international law based on historical sovereignty theories from Hobbes and others, its use seems appropriate here, as it is difficult to find any grammatical difference between “absolute” and “complete and exclusive.”

especially in the United States. Within the United States, the primary focus will temporarily shift from free airspace markets and airspace efficiencies to one in which national security considerations rise to the top. This will involve implementation of changes in airspace structures and control procedures. Because airspace security needs may prove to be an intractable problem, movement by the United States towards a European Union single airspace model is unlikely to happen anytime soon. The realities of U.S. geography increase that likelihood simply because of the great amount of territorial airspace in which U.S. aircraft have to operate commercially without intruding on the airspace of another state. Nonetheless, in spite the events of September 11, the economic pressures to open airspace will persist, although tempered by security concerns. These pressures will continue to drive the United States and Europe towards the release of some aspects of their airspace sovereignty, though each is doing so in very different ways.

II. Early Conceptions Of State Sovereignty Relating to the Sea and Air, and the Rights of Innocent Passage and Commerce

Most modern conceptions of sovereignty began with the advent of the modern nation-state following the end of the Thirty-Years War with the Peace of Westphalia in 1648.⁴ Jean Bodin, an early leading authority on the principles of sovereignty and statehood, considered sovereignty to be the absolute domain of the state, “not limited either in power, or in function, or in length of time.”⁵ Sovereignty was so absolute that it was not bound by law.⁶

⁴ HENKIN ET. AL., *INTERNATIONAL LAW: CASES AND MATERIALS* xxxiv (1987).

⁵ JEAN BODIN, *ON SOVEREIGNTY: FOUR CHAPTERS FROM THE SIX BOOKS OF THE COMMONWEALTH* 14 (Julian H. Franklin ed. & trans. 1992) (1583 ed.).

⁶ R.I.R. Abeyratne, *The Philosophy of Air Law*, 37 AM. J. JURIS. 135 (1992).

Hugo Grotius, often considered the father of international law,⁷ thought sovereignty to be so absolute that it was “not subject to the controul of any other power, so as to be annulled at the pleasure of any other human will.”⁸ These early conceptions of sovereignty influenced the creation of the laws of the United States when Chief Justice John Marshall declared that “[o]ne sovereign being [was] in no respect amenable to another.”⁹ Yet, from the beginning, these early conceptions of sovereignty as supreme, absolute, and uncontrollable, were challenged by technological limitations and the necessities of travel and commerce.

Beginning conceptions of sovereignty were property based. These conceptions began with the idea that all property, being *res communes*,¹⁰ was appropriated by express agreement or simple occupancy.¹¹ Some things, however, were simply considered “impossible to be

⁷ See Boutros Boutros-Ghali, *Essay: The Role of International Law in the Twenty-First Century: A Grotian Moment*, 18 FORDHAM INT'L L. J. 1609, 1609 (1995).

⁸ HUGO GROTIUS, *THE RIGHTS OF WAR AND PEACE* 62 (M. Walter Dunne ed. 1901, A.C. Campbell trans. (1625)).

⁹ *The Schooner Exchange v. M'Faddon*, 11 U.S. (7 Cranch) 116, 137 (1812). In the case, U.S. citizens owned a vessel that was forcibly seized under the orders of Napoleon, the French emperor. The ship later sailed into an American port under a French flag and the citizens filed a libel action to reclaim it. The district court denied the libel for lack of jurisdiction. The appellate court reversed the district court's conclusion that it lacked jurisdiction and its denial of relief. The Supreme Court reversed and found that the vessel was a national armed vessel in the service of the emperor of France. The Court held that when the vessel entered American territory, it did so under the implied promise that the vessel was exempt from United States jurisdiction and enjoyed sovereign immunity. This judicially created rule of absolute foreign sovereign immunity was not significantly modified until the passage of the Foreign Sovereign Immunities Act of 1976, 28 U.S.C. §§ 1602-1611 (West 1994).

¹⁰ *Res communes* are those things that are used and enjoyed by everyone but can never be exclusively acquired as a whole. BLACK'S LAW DICTIONARY 1173 (6th ed. 1990).

¹¹ GROTIUS, *supra* note 8, at 89. Grotius believed that *res communes* existed only so long as it was convenient; thus, as soon as persons or groups had the notion of ownership of land, it was only “natural to suppose it must have been generally agreed, that whatever any one had occupied should be accounted his own.” *Id.*

reduced to a state of property.”¹² Thus, the sea, being difficult to appropriate and impossible to contain, was one of the first areas where the sovereignty of the state was limited.¹³

This view of the sea as *res communes*, was one of the few limitations on princely sovereignty not placed on a state by the mere existence of other states. Being unable to effectively exclude others from its use, the sea-going states wanted the unlimited right of access to the seas with its concurrent benefits of commerce and exploration. Only those areas of the sea close to the shores of a particular state were considered limited in use by others, and then only to the extent that charges or taxes could be laid on the party traversing these coastal areas.¹⁴

As exploration and sea travel increased, the benefits of trade and commerce were soon understood to be an implicit part of these rights of travel. The right of trade with foreign nations began with the notion that natural law gave “every man the right to obtain for himself the things he has need of, by purchasing them at a fair price from those who have no personal need of them.”¹⁵ The rights of trade were imperfect because they could not be compelled. Similarly, the right of innocent passage over owned property was imperfect until it became perfect by right of necessity. Thus, the right of innocent passage attached only

¹² *Id.*

¹³ *Id.* at 89-90. The same rule applied to the air, except that Grotius could not conceive of the use of the air without the simultaneous use of land underneath. *Id.*

¹⁴ See BODIN, *supra* note 5, at 85 (stating the “rights to the sea belong solely to the sovereign prince, who can impose charges up to thirty leagues from his coast unless there is a sovereign prince nearer by to prevent him.” *Id.*).

¹⁵ 3 EDWARD DE VATTTEL, THE LAW OF NATIONS OR THE PRINCIPLES OF NATURAL LAW APPLIED TO THE AFFAIRS OF NATIONS AND OF SOVEREIGNS 40 (Charles G. Fenwick trans., 1916) (1758 ed.).

when the necessity of the innocent passage overcame the interest of the owner in excluding the traveler.¹⁶ Accordingly, the right of trade and innocent passage, in combination with the interest of states in obtaining goods they could not themselves produce, created one the principle forces countering notions of unlimited sovereignty over areas in which states could exclude another state.¹⁷

Grotius believed the rights of innocent passage of both peoples dispossessed of their land and armies fighting just wars were considered part of the international law.¹⁸ He saw no difference between the rights of states fighting just wars to pass over a third party state's territory, and the rights of states trading with distant states, to do the same. "[F]ree passage ought to be allowed not only to persons, but to merchandise. For no power has a right to prevent one nation from trading with another at remote distance; a permission which for the interest of society should be maintained."¹⁹ Those having the rights of innocent passage also had the right to stop in the state they were passing through in cases of sickness or

¹⁶ See *id.* at 150.

¹⁷ Commerce by its very nature is an implicit limitation on absolute sovereignty. A state wishing to trade with other states must generally recognize the rights of other states to travel and trade over its sovereign territory in order to get reciprocal rights to travel and trade over the sovereign territory of other states. Thus, a state's inability to be totally self-sufficient was the first real limitation on state sovereignty. Over time, it was simply in most states' best interest to give up some measure of territorial sovereignty in order to achieve the benefits of interstate commerce.

¹⁸ See GROTIUS, *supra* note 8, at 95.

¹⁹ *Id.* at 97.

emergency.²⁰ These early rights of innocent passage had significant implications on later developments in the concepts of air sovereignty.²¹

Just as the concept of innocent passage arose, there emerged the concept of “innocent use.” Innocent use applied to things “of which the use is inexhaustible, such as the sea and running water.”²² These running waters were considered the various rivers that ran through states' sovereign territories. Persons had the right to use these rivers so long as the use did not “inconvenience” the sovereign state.²³ Accordingly, anything which could be “useful to another without loss or inconvenience to the owner [was,] in that respect, inexhaustible by use, and therefore, the natural law reserve[d] to all men a right to it”²⁴ The right of innocent use was imperfect because it could be limited by the state in times of war or when the use was otherwise detrimental to the state allowing it. Nonetheless, innocent passage or use having no detrimental effect on the state granting them, was not a right to be limited by the state.

From the very beginning of the modern nation-state concept, jurists claimed that state sovereignty was limited by the necessity of commerce, as well as innocent use and passage. Sovereignty over adjacent air and seas was limited by the lack of existing technology to

²⁰ *Id.*

²¹ See *infra*, note 94 and accompanying text. The right of innocent passage and emergency stopping are later adopted as the first two freedoms of the air.

²² HENRY WHEATON, ELEMENTS OF INTERNATIONAL LAW 274, § 193 (Richard Henry Dana ed., 8th ed. Boston 1866).

²³ *Id.*

²⁴ VATTEL, *supra* note 15, at 152.

exclude others from their use. Therefore, these areas were not considered subject to state sovereignty. However, this changed when the effective use of airspace became a reality. How were the existing concepts of sovereignty to be applied to this new realm of air? Was airspace really *res communes* or was it to be analogous to “rivers of air” for which the rights of innocent passage and use applied? In the end, state security and commerce were the forces that shaped this new, emerging sovereignty concept.

III. The Impact Of Air Transportation On Airspace Sovereignty – The Historical Development of Air Rights

The development of airspace sovereignty concepts as related to airspace supra adjacent to state territory involved three distinct ideas: airspace as private property, airspace as *res communes* or *res nullius*,²⁵ and airspace as state property. The first of these concepts concerned private ownership of supra adjacent airspace by subjacent private property owners as against other private property owners and the state in which the property was located. Though private air rights are of secondary importance with regard to airspace sovereignty issues today, such rights were of pre-eminent historical concern prior to the advent of air transportation.

A. Airspace as Property of the Subjacent Land Owner

²⁵ *Res Communes* refers to things used and enjoyed by everyone that can never be exclusively acquired as a whole. BLACK'S LAW DICTIONARY 1305-6 (6th ed. 1990). Conversely, in Roman law, *res nullius* refers to property that belongs to no one and which is not susceptible to private ownership. *See id.* at 1306.

By their own nature, air rights can assume various forms. The form that probably developed first was the notion that airspace above private property was owned by the owner of the subjacent property. This property-based form of air law had its origin in Roman law. The Romans, in attempting to protect the private rights of its citizens, developed the maxim *cujus est solum, ejus est usque ad coelum*, meaning the "right of land ownership brings with it rights of ownership of airspace above that land."²⁶ Roman citizens wanted the right to control the projection of items from adjacent properties that would interfere with the use of their own property. Interferences could take the form of disturbances to air, light, and rainwater.²⁷ Roman law was not concerned with trespasses through airspaces lasting only minutes or seconds but only with trespasses of a more permanent nature. Although there has been much debate on whether the Romans really believed in the *ad coelum* concept, it is clear that the Romans recognized interests in airspace. Roman law probably viewed air in three ways: first, airspace over public lands had the same legal status as the surface, which was state control; second, air was common to all to sustain life and thus, common to all men; and third, airspace over private lands was the property of the landowner to an indefinite height subject only to building restrictions.²⁸ Hence, the "air" and the "space" were viewed in two different ways—the air itself as *res communes* and the actual space as private property. Some commentators later attempted to reconcile this dichotomy as being consistent with the traditional view of property, stating that the vested right of the owner to

²⁶ See Abeyratne, *supra* note 6, at 135. Literally translated, the phrase means "whose is the soil, his it is up to the sky." BLACK'S LAW DICTIONARY 341 (5th ed. 1979). One commentator points out that Roman views on the subject of air law were far from well established and found evidence that the Romans viewed the air as belonging to the whole community. WENCESLAS J. WAGNER, INTERNATIONAL AIR TRANSPORTATION AS AFFECTED BY STATE SOVEREIGNTY 11 (1970). This, however, seems to be the minority view.

²⁷ See Herbert D. Klein, *Cujus Est Solum Ejus Est... Quousque Tandem?*, 26 J. AIR L. & COM. 237, 241 (1959).

²⁸ See *id.*

construct or plant extended to an indefinite height. However, until a landowner exercised his rights, the airspace could be treated as public or common property.²⁹

The Roman rule was subsequently adapted under English common law to mean that no state acquired any domain in what was known as navigable airspace until it was needed to protect subjacent territory.³⁰ The reason for this modification was that jurists could not accept a maxim that was not shown “by common law . . . [to have] always been the custom to observe.”³¹ Thus, a linkage arose between the use of airspace by others and necessary protection of the subjacent land. This was clearly supported by both American and English courts.³²

For example, in England, actions for trespass were often dismissed where the object passed over the subjacent land or hung over the subjacent land of another without touching it.³³ Only if, for example, a bullet fired over land fell on the land, could an action in trespass be brought. If an overhanging object did not immediately fall on the land when it was being hung, then only an action on the case could be brought.³⁴

²⁹ Mary B. Spector, note, *Vertical and Horizontal Aspects of Takings Jurisprudence: Is Airspace Property*, 7 CARDOZO L. REV. 487, 500 (1986) (citing Bouve, *Private Ownership of Airspace*, 1 AIR L. REV. 232, 246 (1930)).

³⁰ Abeyratne, *supra* note 6, at 135-36. The word “state” probably means, in this context, both state sovereignty as it relates to other states and the public property rights of the citizens of a state in airspace—both as limitations to private property claims of individual citizens to airspace extending indefinitely above private land.

³¹ *Id.* (quoting 1 WILLIAM BLACKSTONE, COMMENTARIES 68).

³² *Id.*

³³ See Albert I. Moon, *A Look at Airspace Sovereignty*, 29 J. AIR L. & COM. 328, 330 (1963). Moon cites as examples *Pickering v. Rudd*, 4 Camp. 219 (Eng. 1815) (ruling a board overhanging plaintiff’s garden not a trespass) and *Clifton v. Bury (Viscount)*, 4 T.L.R. 8 (1887) (holding bullets fired 75 feet over another’s land not a trespass).

³⁴ See *Pickering*, 4 Camp. at 221.

In the United States, the Supreme Court finally put the unlimited property notion of airspace above land to rest in 1945. The Court stated:

It is ancient doctrine that a common law ownership of the land extended to the periphery of the universe—*Cujus est solum ejus est usque ad coelum*. But that doctrine has no place in the modern world. The air is a public highway. . . . Were that not true, every transcontinental flight should subject the operator to countless trespass suits. Common sense revolts at the idea. To recognize such private claims to the airspace would . . . transfer into private ownership that to which only the public has a just claim.³⁵

Even before *Causby*, the private property notion of unlimited ownership of airspace had become antiquated by the end of the nineteenth century. A “strata” approach to private ownership of airspace was, in one form or another, being developed and debated. Under this approach, airspace above private property was “owned” by the owner of the land below only in the lower strata.³⁶ The delineation between the upper and lower strata was never really fixed by the courts except as it related to the peaceful enjoyment of the land below. Naturally, the development of air transportation technology greatly influenced this debate.

At least six theories of airspace property were discussed in the early part of the twentieth century.³⁷ The “absolute ownership” theory of Roman law was rejected outright, as was the “no ownership” theory.³⁸ This left four intermediate theories; easement,

³⁵ See Moon, *supra* note 33, at 330 (quoting *United States v. Causby*, 328 U.S. 256, 260-61 (1945)).

³⁶ Kevin Gray, *Property in Thin Air* 252, 253-54, 50 CAMBRIDGE L.J. (1991).

³⁷ Colin Cahoon, Comment, *Low Altitude Airspace: A Property Rights No-Man’s Land*, 56 J. AIR L. & COM. 157, 163 (1990).

³⁸ See *id.* at 166. The “no-ownership” theory involved the idea that no airspace was actually owned unless it was actually occupied by the subjacent landowner.

privilege, fixed height, and effective possession. Under the “easement” theory, property was subject to a public easement to aviation traffic. This theory acknowledged property ownership in air above private property subject to the easement so a trespass was only actionable if the easement was misused.³⁹ The “privilege” theory was similar to the easement theory in that trespass into private airspace was privileged and, therefore, a defense to the trespass. Both theories allowed traversal of the subjacent property as long as there was no misuse. The fixed-height or “strata” theory depended on legislative actions defining the level of the upper strata, usually called “navigable airspace.” It was clearly the easiest theory to administer. The “effective-possession” theory, on the other hand, was nothing more than a twist on the fixed-height theory whereby the determination of the maximum height of the lower strata depended on the nature of the land and its possible uses.⁴⁰ These last two approaches formed the basis of the modern approach to airspace as private property: ownership limited by the definition of navigable airspace with navigable airspace being defined by the state based on the nature of the activity occurring on the land below.

B. The Res Communes/Airspace Sovereignty Dichotomy

The second major air rights concept to develop was most likely the concept of airspace as common property owned by all.⁴¹ Although the notion of airspace as *res*

³⁹ *Id.* at 164.

⁴⁰ *See id.* at 165-66.

⁴¹ The view of property as *res communes* is entirely distinct from the concept of state property. *Res communes* refers to property belonging to all “to be used and enjoyed by everyone.” BLACK’S, *supra* note 25, at 1305-06. State property includes, among other things, “public” property belonging collectively to the citizens of “the entire state or community, *id.* at 1217, but this “public” property is not *res communes* because it does not belong to the citizens of other states.

communes should have logically developed before the concept of airspace as private property, there seems to be little discussion of it prior to the rise of Roman law. As discussed above, Roman law viewed airspace as private property and it was not until much later that jurists began to analyze air rights in the context of international law. Like his views on the sea, Grotius forwarded the proposition that the air could not be reduced to private property, and thus, was “common property, except that no one can use or enjoy it, without at the same time using the ground over which it passes or rests.”⁴² This concept of airspace as *res communes* likely arose because of the inability of states to appropriate airspace and exclude other states from its use—a concept identical to that of the seas as *res communes*.⁴³

Naturally, the concept of airspace as *res communes* conflicted directly with views that airspace supra adjacent to sovereign territory was also the sovereign territory of the subjacent state.⁴⁴ It is important to note that, with respect to the airspace sovereignty/*res communes* dichotomy, the private property notion of airspace rights falls squarely in the airspace sovereignty camp. In other words, “[e]ven the property of individuals, taken as a whole, is to be regarded as the property of the Nation with respect to other Nations. In a

⁴² See GROTIUS, *supra* note 8, at 89-90. Implicit in Grotius’ statement is the admission that use of the airspace impacts the ground below, and thus the statement seems to admit that its use could interfere with the rights of subjacent property owners. This idea conflicts directly with the reasons for the Roman *ad coelum* concept—the protection of a private property owners rights to air, light, and rain.

⁴³ This same inability would, of course, apply to the inability of private property owners to exclude others from the use of the vast majority of airspace supra adjacent to private property.

⁴⁴ Note that the debate regarding air as *res communes* differed markedly with regard to airspace above the high seas and land not owned by any state, e.g. Antarctica, because those areas did not typically involve either private property or sovereignty claims.

sense it really belongs to the Nation, because of the rights which the Nation has over it and because it constitutes part of the sum total of national wealth and power.”⁴⁵

Airspace sovereignty was the last major air rights concept to formally develop. With the advent of the airplane, the beginning of the twentieth century saw the emergence of state sovereignty claims over supra adjacent airspace; claims which were previously unnecessary. This is not to say that the formal development of airspace sovereignty was an abrupt change in states' approaches to airspace ownership. It was

no more than a modern, legislative version of rights which . . . States have, since Roman times, continuously recognized, regulated and protected; . . . rules of private law in favor of owners or occupants of lands on the surface below, but constitut[ing] proof that States have always claimed and exercised territorial sovereignty in space above their surface.⁴⁶

C. Development of Airspace Sovereignty Concepts Before World War I

Several theories arose prior to World War I in an attempt to define the limits, if any, of this newly evolving concept of sovereignty over airspace. Pufendorf, more than two centuries prior to the invention of the airplane, advocated his belief that a “man's sovereignty in the air was limited by the ability for effective control.”⁴⁷ Pufendorf's referral to “man's sovereignty” probably referred to both the ability of private property owners and states to

⁴⁵ Vattel, *supra* note 15, at 138. The air rights debate can be viewed in two ways: 1) the limitation of private property rights in airspace by either the state or *res communes*; or 2), the limitations of airspace as *res communes* by state sovereignty or private property claims or both.

⁴⁶ Klein, *supra* note 27, at 238.

⁴⁷ See Moon, *supra* note 33, at 330.

exclude others in the generic sense. This proposition was reasonable and emulated the prevailing view that sovereignty over the seas was not part of international law because a state could not effectively exclude other states from its use—the hallmark of state control.

In the two decades prior to World War I there was a wide divergence of thought over how much sovereignty a state had over its supra adjacent airspace. At one end of the spectrum was the view of airspace as *res communes*. Scholars influenced by the rule of freedom of the high seas, advocated the absolute freedom of air navigation.⁴⁸ These included Fauchille, who submitted a draft code of the air in 1902.⁴⁹ In it he stated that “[t]he air is free. States have in the air in time of peace and in time of war only those rights which are necessary for their preservation.”⁵⁰ At the other end of the debate were those scholars, influenced by traditional notions of sovereignty, who advocated that a state had absolute sovereignty over all airspace supra adjacent to its territory. “[T]he state’s full right of sovereignty in the entire airspace above its territory and territorial waters is demanded by existing legal principles and by the interests of states themselves and mankind in general.”⁵¹

⁴⁸ Jeswald W. Salacuse, *The Little Prince and the Businessman: Conflicts and Tensions in Public International Air Law*, 45 J. AIR L. & COM. 807, 810 (1980).

⁴⁹ HAROLD D. HAZELTINE, *THE LAW OF THE AIR* 4 (1911). Although Fauchille recognized the need for state security in an airspace regime, his premise started with the principle that the “air is free in all its parts.” *Id.* at 20 (quoting Paul Fauchille).

⁵⁰ *Id.* at 16-17.

⁵¹ *Id.* at 44. Hazeltine was uncompromising in his view that absolute airspace sovereignty was the correct legal regime. He did not see such a regime as a hindrance or restriction on the development of air transportation and commerce as some of his contemporaries did. To the contrary, Hazeltine predicted that uniform regulation of air navigation would come about more readily if the doctrine of absolute airspace sovereignty were adopted. *Id.* at 30-31. His prediction came true upon the signing of the Convention on International Civil Aviation 36 years later, Article 1 of which declared a state’s complete and exclusive sovereignty over its airspace. *See* Convention on International Civil Aviation, art. 1, *supra* note 3. This Convention is discussed in more detail, *supra* Part IV.C.

Of course, as with the sovereignty over the seas, sovereignty over airspace could only be absolute if the subjacent state had the right to use and possess the supra adjacent airspace to the exclusion of others. This required three things. First, the right to use supra adjacent airspace was linked to the social needs of the subjacent state. Thus, there was no absolute sovereignty where the subjacent state did not need the use of the airspace above its territory.⁵² This idea of necessity came from natural law notions that “no Nation may lawfully appropriate an extent of territory entirely disproportionate to its needs, and thus restrict the opportunity of settlement and sustenance for other Nations.”⁵³ Second, the right to possess supra adjacent airspace required the will to hold it as an owner, the will to exclude others from its use, and the will to claim it for one's self.⁵⁴ Finally, absolute sovereignty required the ability to control the airspace to the exclusion of others, often thought of in modern terms as the ability to legislate over the airspace.⁵⁵

Three intermediate theories of airspace sovereignty also emerged prior to World War I. The first theory advocated freedom of the air existing above a certain altitude with airspace below that altitude being the “territorial air” of the subjacent state.⁵⁶ This approach embodied both extremes at the same time, absolute airspace sovereignty and absolute freedom of the air. The second theory followed a functionalist approach of limited

⁵² See Abeyratne, *supra* note 6, at 142.

⁵³ VATTEL, *supra* note 15, at 140.

⁵⁴ *Id.*

⁵⁵ *Id.* at 143. These three touchstones of absolute sovereignty apply to all claims of absolute sovereignty over any type of territory, body of water, air, or space.

⁵⁶ See Salacuse, *supra* note 48, at 810.

sovereignty, whereby absolute sovereignty existed over supra adjacent airspace depending on the type of aircraft or use to be made of the airspace by other states.⁵⁷ Thus, for example, a state could claim sovereignty over supra adjacent air to prevent passage of military aircraft but not civil aircraft. In reality, this “limited sovereignty” approach was nothing more than a variation on the absolute sovereignty model.⁵⁸ In theory at least, the term “limited sovereignty” is an oxymoron because the very concept of sovereignty entails the full power of the state. Thus, the functionalist approach is more easily explained as absolute sovereignty over supra adjacent airspace with innocent passage granted by the subjacent state to certain types of aircraft—a theory similar to the innocent passage of traffic on rivers passing through sovereign territory. The third model combined both of the above intermediate approaches. It provided for absolute sovereignty over air above a state up to a certain altitude and limited sovereignty above that altitude only to the extent necessary for the protection of the subjacent state. This was the approach advocated by the Frenchman Paul Fauchille, the leading advocate of freedom of the air.⁵⁹ Fauchille pushed for setting an arbitrary limit above the ground, above which absolute freedom of the air would exist. The limit he proposed was 330 meters, the height of the Eiffel Tower (300 meters) plus the maximum height for structures carrying electric power (30 meters).⁶⁰

⁵⁷ *Id.* at 811.

⁵⁸ WENCESLAS J. WAGNER, INTERNATIONAL AIR TRANSPORTATION AS AFFECTED BY STATE SOVEREIGNTY 25 (1970).

⁵⁹ *See id.* at 18. *See also, supra* note 49 and accompanying text.

⁶⁰ *Id.* Fauchille did not believe it likely that any future structure would ever surpass the height of the Eiffel Tower.

In 1910, various states met at the International Conference on Air Navigation, held to attempt to define airspace sovereignty in international law. The conference failed to achieve its objectives, although it did bring into focus the various approaches regarding various “regimes of the air.”⁶¹ Great Britain and its supporters at the Conference believed that airspace sovereignty extended *usque ad coelum* and a state was not required to treat foreign and national aircraft on an equal basis.⁶² This view likely resulted from Great Britain's long struggle to secure domination over the seas and obtain security for its islands.⁶³ Security concerns were paramount to the British, so creating new security risks by having foreign aircraft freely transiting British airspace did not entice the British to be supportive of any freedom of the air approaches. On the other hand, France advocated limited sovereignty whereby a state could only enact certain regulations that would protect its interests.⁶⁴ France had begun to dominate the development of the art of flying at that time and from its dominant role in aviation, the theory of freedom of the air probably made good sense.⁶⁵ Although the 1910 Conference ended with no firm agreement, there was general agreement that there was some limit to airspace sovereignty *supra* adjacent to national territory.⁶⁶ This debate over airspace sovereignty changed fundamentally with the advent of World War I.

D. Airspace Sovereignty Views Following World War I

⁶¹ See Dr. D. Goedhuis, *The Air Sovereignty Concept and United States Influence On Its Future Development*, 22 J. AIR L. & COM. 209, 210 (1955).

⁶² See Salacuse, *supra* note 48, at 812.

⁶³ See WAGNER, *supra* note 58, at 12.

⁶⁴ *Id.*

⁶⁵ See *id.*

⁶⁶ See Goedhuis, *supra* note 61, at 211.

World War I set in motion two dichotomous forces that eventually shaped modern airspace sovereignty views. The war, at once, demonstrated the incredible potential of air transportation on state commerce and the incredible destructiveness that air power could wreak during all-out war. By the end of the war, "air law was regarded as a discipline that accepted [a]ir to be a free commodity except when it was connected to owned property."⁶⁷ The need for a state to protect itself prevailed over the advantages to be gained by freedom of commerce by air. The actions of states with regard to various national legislation and diplomatic actions in response to various aerial incidents, demonstrated that states had "definitively rejected absolute freedom of the air and enforced the principle of sovereignty to the point where it appeared to be a customary rule of international law."⁶⁸

Accordingly, the custom of states following World War I to claim absolute airspace sovereignty became the international norm. Applying this custom as international law was consistent with "pure theory of law" which postulated that the basic norm of international law is international legal custom.⁶⁹ "In this context, the philosophy of air law [was] founded on the concept of sovereignty in airspace and would sustain its credibility through this customary concept" until something occurred to change the international norm.⁷⁰ What occurred after World War I were several attempts by international agreement to change this international norm through a variety of legal regimes.

⁶⁷ Abeyratne, *supra* note 6, at 137-38. In this context, "owned" refers to state property rights in airspace that encompass the private property rights of the citizens of the state. See *supra* note 45 and accompanying text.

⁶⁸ *Id.*

⁶⁹ See *id.* at 143.

⁷⁰ *Id.*

IV. Twentieth Century Regimes of Airspace Sovereignty After World War I

A. *The Paris Convention of 1919—Absolute State Sovereignty Over Supra Adjacent Airspace Prevails*

The perceived costs of freedom of the air increased dramatically after World War I due to the severe threat of aircraft as weapons. Although states recognized the possible commercial advantages of technological advances in aircraft, it was the military aspects of the development of aircraft during the war rather than the technological aspects during that worried the states.⁷¹

The first multi-lateral treaty concerning air law was signed following the 1919 Paris Convention.⁷² Twenty years of debates over territorial airspace ended with a formal recognition under Article 1 of the treaty that “every Power has complete and exclusive sovereignty over the air space above its territory.”⁷³ The use of the word “recognize” indicates that the international norm or custom in evidence prior to the Paris Convention had prevailed, and that “sovereignty over airspace was a customary principle of international law

⁷¹ CHRISTEN JONSSON, *INTERNATIONAL AVIATION AND THE POLITICS OF REGIME CHANGE* 156 (1987).

⁷² Convention Relating to the Regulation of Aerial Navigation, Oct. 13, 1919, 11 L.N.T.S. 173 [hereinafter Paris Convention].

⁷³ *Salacuse*, *supra* note 48, at 813 (quoting the Paris Convention, art. 1, *supra* note 72). Thirty-two states eventually ratified the treaty although the U.S. was not one of them. *Id.* at n.25. The United States unilaterally asserted sovereignty over its airspace by means of the Air Commerce Act of 1926, ch. 344, 44 stat. 568 (1926).

which existed apart from the Convention and did not come into existence because of it.”⁷⁴

This formal recognition of airspace sovereignty gave all states the right under international law to enact regulations and use sovereign police powers any way they wished over their sovereign airspace.

Of the possible freedoms of the air,⁷⁵ the only freedom of the air formally recognized by the Paris Convention was in Article 2. Article 2 provided for the right of innocent passage to foreign aircraft; a right similar to the innocent passage rights of foreign ships in the territorial waters of a state.⁷⁶ The first freedom of the air—the right to fly over another state—became part of formally recognized international law. This freedom was accorded to all aircraft regardless of nationality, but the granting state could impose restrictions and limitations on the overflying aircraft.⁷⁷ Consequently, the Convention, in the same instant, adopted aspects of both airspace sovereignty and freedom of the air.

The Paris Convention set up an incomplete framework because it failed to deal with the problem of the rights of aircraft to land in a foreign state and totally ignored what was to

⁷⁴ Salacuse, *supra* note 48 at 814. There is little evidence prior to World War I that international law relating to airspace sovereignty (as demonstrated by international norm or custom) involved any realistic notions of freedom of the air above *supra* adjacent territory.

⁷⁵ See *infra* note 94 and accompanying text for a discussion of the five major freedoms of the air recognized by states.

⁷⁶ See Salacuse, *supra* note 48, at 815.

⁷⁷ *Id.* For example, the state granting passage could “prescribe the route which such aircraft might take, prohibit flight over certain areas for military or public safety purposes, and require such aircraft to land on its territory for ‘reasons of general security’.” *Id.* (quoting Article 15 of the Paris Convention which repeats Article 2 in allowing “[E]very aircraft of a contracting State ... to cross the airspace of another State without landing.”). Note that the right of the citizens within a state to fly in their state’s sovereign airspace was not affected by the Paris Convention. Those rights were determined by the individual state exerting sovereign power over its own citizens.

become the primary impetus for future agreements, international commercial aviation.⁷⁸ With the exception of innocent passage, the Paris Convention seemed to stand for little except formal recognition of the customary international norm of sovereignty over the air. However, viewed another way, the Paris Convention represented the triumph of equality of states over the “power-orientated” approach to international law.⁷⁹ This approach favored the more technologically advanced and powerful states that, under a freedom of the air regime, would be able to take advantage of all air resources. On the other hand, unrestricted sovereignty implied equality between states, large and small, powerful and weak. Thus, absolute state sovereignty over airspace ensured that 1) the smaller and/or weaker states would have the right to prevent exploitation of their air resources by the air powers⁸⁰ and; 2) states like the United States, which had large land areas, gained protection and control over their large supra adjacent airspace masses. Sovereignty over airspace became, in a sense, the great equalizer. “[T]he adoption of the principle of sovereignty may have placed the international community irrevocably on the path of seeking an international legal framework for aviation which would be acceptable to both large and small states alike.”⁸¹

B. The Air Conference of 1929—The First Freedom Erodes, an Unrestricted Sovereignty Regime Continues

⁷⁸ *Id.* at 815.

⁷⁹ *Id.*

⁸⁰ See JONSSON, *supra* note 71, at 157.

⁸¹ Salacuse, *supra* note 48, at 814.

With “the war to end all wars” over, consideration of the commercial aspects of air sovereignty continued to grow. In order to develop the commercial advantages that pertained to air transportation, one would have imagined that states would be willing to give up more of their airspace sovereignty. Appreciation for international law had been growing with the advent of the League of Nations, and Europe was in a massive rebuilding phase. But this willingness never materialized. In 1929, the United Kingdom wished to establish air service that would fly over the Belgian Congo. Belgium opposed this, and the issue was taken up at the Air Conference of 1929.⁸² Of the thirty-one states participating in the conference, twenty-seven completely abandoned the first freedom of the air—the freedom of traffic. Only the United States, United Kingdom, Sweden, and the Netherlands continued to consider the restriction of air sovereignty as a necessity.⁸³ What prompted this great retreat into the shelter of absolute sovereignty? Considerations of national security were discussed, but it was uncertainty of the states over their own ability to compete and fear of commercial competition that primarily influenced the retrogressive move back to the total air sovereignty concept.⁸⁴ This move away from the first freedom of the air continued with the eventual withdrawal of both the United Kingdom and the United States from the first freedom camp.

⁸² See Goedhuis, *supra* note 61, at 212.

⁸³ *Id.* at 213.

⁸⁴ *Id.* This retrogression resulted because of the “unimaginative” attitude of states in approaching commercial development of state airspaces. No attention was paid to the negative effects that absolute airspace sovereignty claims might have on development of the world’s airlines, including the airlines belonging to the states aggressively advocating the absolute sovereignty approach. *Id.* Competition, which would have forced increases in efficiency and cost control, disappeared and led to the near collapse of many state owned airlines, especially in Europe, once competitive pressures later appeared.

As a result, the robust development of intercontinental air transportation was delayed for years until well into World War II.⁸⁵

C. The Chicago Aviation Conference of 1944—A Final Attempt to Institute the Freedoms of the Air

In 1943, President Roosevelt, believing that it was once again time to try to get world agreement on the future of air transportation,⁸⁶ encouraged another attempt to establish a worldwide agreement on freedom of the air. After the conference, called the Chicago Aviation Conference of 1944, convened, the United States attempted to get other states at the conference to agree to give up their airspace sovereignty to the extent that it restricted air transportation. The United States did not advocate freedom of the air in the way that Fauchille did, that is, as an express limitation on a states' sovereignty over its airspace.⁸⁷ Rather, it campaigned for "freedom of the air" in a commercial sense.⁸⁸ Air transportation privileges similar to those customary in the carriage of commerce at sea were sought.⁸⁹ At the time of the Conference the United States dominated world aviation, having over 20,000

⁸⁵ *Id.* One major attempt to help commercial aviation develop prior to World War II occurred in 1929 with the creation of the Convention for the Unification of Certain Rules Relating to International Carriage by Air, Oct. 2, 1929, 49 Stat. 3000, 137 L.N.T.S. 11. Commonly called the Warsaw Convention, this international agreement, along with its subsequent amendments and protocols, is still the primary and most widely accepted private international air law system governing the uniform regulation of the conditions of international air transportation. Its primary mechanism is the limitation of air carrier liability for damages to passengers and cargo. The original liability limit in 1929 was about \$8300 per passenger for death or injury. MAREK ZYLICZ, INTERNATIONAL AIR TRANSPORT LAW 89-90 (1992). The Warsaw Convention aided private international air transportation because it supplied predictability for the air carriers.

⁸⁶ See Goedhuis, *supra* note 61, at 213.

⁸⁷ See *supra* note 49 and accompanying text.

⁸⁸ DAVID JOHNSON, RIGHTS IN AIRSPACE 65 (1965).

⁸⁹ See Moon, *supra* note 33, at 332.

transport aircraft.⁹⁰ Thus, it was only natural that it wanted to develop this great commercial resource. With World War II coming to a close, the international focus was on the way individual states and their national airlines could develop the commercial aspects of air transportation. “[F]reedom of the air’ as a slogan had been replaced by ‘free trade by air.’”⁹¹ Concerns of national security played a small role in the negotiations. Considerations of air commerce were clearly more important. This was probably due to a lack of any perceived threats from the air at the time of the Conference combined with evidence of the great potential of air commerce gleaned from its tremendous use during the war. This opportunity was recognized by President Roosevelt who saw the possibility of avoiding the closing great masses of airspace in the same way that states tried to close off the great sea areas during the age of empire building.⁹² Roosevelt was convinced that lasting peace could only be built in a world in which commerce and transport were free. He wanted to use the United States’ dominating economic position to help realize his vision.⁹³

The Chicago Aviation Conference marked the beginning of a formal discussion of the “freedoms of the air.”⁹⁴ Five freedoms of the air were formally recognized:

1. The right of A's airline to overfly state B to get to state C.
2. The right of A's airline to land in B for fuel or maintenance but not to pick up or discharge traffic, called a “technical landing.”

⁹⁰ See WAGNER, *supra* note 58, at 81.

⁹¹ Salacuse, *supra* note 48, at 820.

⁹² See Goedhuis, *supra* note 61, at 219.

⁹³ *Id.* at 219-20.

⁹⁴ See JONSSON, *supra* note 71, at 31.

3. The right of A's airline to discharge traffic from A in B.
4. The right of A's airline to carry traffic back to A from B.
5. The right of A's airline to collect traffic in B and take to C.⁹⁵

Interestingly, a dichotomy was created when those countries advocating freedom of the air split into two camps. The United States advocated the idea of free enterprise of the air through the use of a multilateral convention with freedom of the air as its foundation. New Zealand and Australia supported the idea of *res communes*. Under the *res communes* view, an international air transport authority would be created which would own the aircraft and have the exclusive right to operate them on all international air routes.⁹⁶ In contrast, under the U.S. view, free enterprise would reign and any international aviation organization would concern itself only with technical matters such as navigation and safety.⁹⁷ In this regard, the U.S. position partially prevailed upon creation of the International Civil Aviation Organization ("ICAO") following the Chicago Conference.⁹⁸ ICAO became responsible for

⁹⁵ See JOHNSON, *supra* note 88, at 65. The first two freedoms are called the "technical" or "transit" freedoms. The remaining three freedoms are called the "commercial freedoms." Other freedoms of the air have since been identified but are variations of the commercial freedoms. These include the freedom of cabotage—the right to carry mail, passengers, or other cargo from one point in the territory of a state to another point in the same state. See ZYLICZ, *supra* note 85, at 80.

⁹⁶ See Salacuse, *supra* note 48, at 820.

⁹⁷ *Id.* Salacuse notes that the British took a middle position by seeking "controlled development" of aviation. Because the British concentrated on fighter production during World War II, it would take time for them to adjust to the manufacture of transport aircraft. Britain also feared the cost of subsidizing its state airlines in the face of American air capability. As a result, Britain proposed an international aviation organization that would have, not only technical power, but also the ability to set rates, frequency, and allocation of air services by all states. *Id.* at 821. The British position did not prevail.

⁹⁸ ICAO was created under Articles 43-66 of the International Convention on Civil Aviation, commonly called the Chicago Convention. See Chicago Convention, arts. 43-66, *infra*, note 100.

technical matters, as well as preparation of draft conventions and recommendations on economic matters.⁹⁹

As for the approaches to instituting freedoms of the air, neither the U.S. nor the New Zealand/Australian view prevailed. Other nations, fearing the commercial potential of the United States aviation industry, opted instead to reaffirm the principle of absolute sovereignty in supra adjacent airspace. Article 1 of the resulting Convention on International Civil Aviation,¹⁰⁰ one of the four agreements negotiated at the Conference, was almost identical to Article 1 of the 1919 Paris Convention,¹⁰¹ reaffirmed that "every state had complete and exclusive sovereignty over the airspace above its territory."¹⁰² Nonetheless, Article 5 of the Chicago Convention mitigated the harsh reaffirmation of absolute airspace sovereignty by recognizing the first two freedoms of the air—but only for *non-scheduled* air traffic.¹⁰³ On the other hand, the Chicago Convention did not grant any freedoms of the air

⁹⁹ ICAO became a specialized agency of the United Nations on May 13, 1947. See I. H. PH. DIEDERIKS-VERSCHOOR, AN INTRODUCTION TO AIR LAW 39 (6th ed. 1997). It is a powerful organization with 161 members as of 1992. However, it has minimal economic regulatory competence. MAREK ZYLICZ, INTERNATIONAL AIR TRANSPORTATION 83-84 (1992).

¹⁰⁰ Convention on International Civil Aviation, *opened for signature*, Dec. 7, 1944, *entered into force*, Apr. 4, 1947, T.I.A.S. No. 1591, 15 U.N.T.S. 295 [hereinafter Chicago Convention]. The Chicago Convention does not apply to "state" aircraft such as military, customs, and police aircraft. *Id.* at art. 3(a). There is currently no universally accepted definition of a state aircraft and the legal status of such aircraft is uncertain, mainly due to Article 3(a) of the Chicago Convention. See DIEDERIKS-VERSCHOOR, *supra* note 99, at 34.

¹⁰¹ See Paris Convention, art. 1, *supra* note 72; Salacuse, *supra* note 48, at 824.

¹⁰² Chicago Convention, art. 1, *supra* note 100. For a discussion of the various agreements prepared during the Chicago Convention of 1944, see JOHNSON, *supra* note 88, at 58-66.

¹⁰³ Chicago Convention, art. 5, *supra* note 100. Non-scheduled traffic was another name for traffic not associated with private or state owned airlines. This was a giant loophole in the Chicago Convention because the growth of non-scheduled air traffic surpassed that of scheduled traffic in the years following World War II. Thus, the Chicago Convention unwittingly granted the technical freedoms of the air to a large portion of the air traffic. It was not private aircraft that became of concern but rather charter services. See DIEDERIKS-VERSCHOOR, *supra* note 99, at 15.

to *scheduled* air traffic absent express permission of the state over which the aircraft intends to fly.¹⁰⁴

Sensing an imminent failure to achieve any type of acceptable commercial freedoms of the air convention, a multi-lateral approach to the problem was undertaken. Two side agreements emerged from these talks. The International Air Services Transit Agreement,¹⁰⁵ otherwise known as the "Two Freedoms Agreement," gave the contracting states the first two freedoms of the air. The International Air Transport Agreement,¹⁰⁶ called the "Five Freedoms Agreement," provided all signatory states the first two freedoms plus the commercial freedoms.¹⁰⁷ While only twenty-six countries, including the United States and Great Britain, signed the Two Freedoms Agreement initially,¹⁰⁸ as of 2000, more than seventy countries had signed on.¹⁰⁹ The Five Freedoms Agreement, on the other hand, was a complete failure. Only the United States and fifteen other scattered states signed the agreement, with the United States withdrawing from it in 1947.¹¹⁰

¹⁰⁴ Chicago Convention, art. 6, *supra* note 100. The vast amount of non-scheduled traffic such as charter operations had a great impact on commerce at that time. As a result, many of the signatories of the convention ignored Article 5 by requiring that specific permission be granted before allowing non-scheduled air traffic the technical freedoms of the air that were clearly allowed under Article 5, essentially applying Article 6 restrictions to all traffic. See Ruwantissa I.R. Abeyratne, *The Economic Relevance of the Chicago Convention—A Retrospective Study*, 19 ANNALS OF AIR & SPACE L. 3, 15-16 (1994).

¹⁰⁵ International Air Services Transit Agreement, Dec. 7, 1944, 59 Stat. 1693, 84 U.N.T.S. 389.

¹⁰⁶ International Air Transport Agreement, Dec. 7, 1944, 59 Stat. 1701, 171 U.N.T.S. 387.

¹⁰⁷ *Id.* at 825.

¹⁰⁸ See WAGNER, *supra* note 58 at 140.

¹⁰⁹ *United Nations: United Nations Decade of International Law (Report of the Secretary General)*, 39 INT'L LEGAL MATERIALS 966, 970 (2000).

¹¹⁰ JOHNSON, *supra* note 88, at 65. As of 2000, only 12 states remained parties to the agreement. See *United Nations*, *supra* note 109, at 970.

D. The Emergence of the Bilateral Model—Airspace Sovereignty Gives Way To Bilateral Agreement

The Chicago Convention failed to establish a multi-lateral framework for international air transportation and essentially reaffirmed the absolute air sovereignty principle. As a result, states turned to the bilateral agreement as a basis for future air transportation development. The sheer number of states participating in the Conference, divergent opinions, and the complexities of the issues surrounding commercial freedoms gave states no other choice. With rejection of the Five Freedoms Agreement came the choice of either closing off airspace access to other states completely or attempting to establish individual "five freedoms" style agreements with individual states through the use of reciprocity.¹¹¹

The use of bilateral air rights agreements by the United States was not unanticipated. Historical research shows that there was a basic conflict within the United States Government prior to the Chicago Conference. One group preferred the bilateral mechanism and the leverage it gave the United States in negotiations. The other, more idealistic group, which possibly included President Roosevelt himself, were concerned with a much more comprehensive approach to free trade by air in the post-war world.¹¹² The United States had

¹¹¹ See DIEDERIKS-VERSCHOOR, *supra* note 100, at 51.

¹¹² William E. O'Connor, *Present at the Creation: A Note on Some Historical Research*, 6 AIR L. 23, 25-26 (1981). O'Connor "winces" at the "grievously misleading oversimplification" of the U.S. liberal espousal of freedom of the skies at the Chicago Convention. *Id.* at 23. He also notes that for the U.S. and U.K the Chicago Convention was more an opportunity to work out a bilateral mechanism between them, because the two states were the "most significant powers with respect to the reestablishment of world airline service after the war." *Id.*

negotiated its first bilateral air agreement with Colombia in 1929 so it was familiar with the process following the Chicago Convention.¹¹³ When viewed from a sovereignty standpoint, these bilateral agreements served as a limitation of airspace sovereignty for mutual benefit.

Great Britain, having failed in Chicago in their attempts to establish an international body charged with the control of international air traffic, and having refused to sign the Five Freedoms Agreement, was faced with the choice of closing off its airspace to international traffic or using the bilateral model.¹¹⁴ In the end, state interests favored the bilateral agreement even though the United States had the upper hand in such negotiations because of its superior bargaining position (the sheer number of cities it could offer to foreign airlines). Accordingly, in 1946, Great Britain and the United States concluded the Bermuda I Agreement.¹¹⁵ It served as the worldwide model for all future bilateral agreements.¹¹⁶ The Bermuda I Agreement was relatively specific, detailing the fares, routes, capacities and frequency levels of air transportation services between the two countries. It clearly represented a compromise between the freedoms of the air position of the United States and the controlled development position of Great Britain.¹¹⁷

¹¹³ See *id.* at 24.

¹¹⁴ See WAGNER, *supra* note 58 at 147-48.

¹¹⁵ Agreement between the Government of the United Kingdom and the Government of the United States Relating to Air Services between their Respective Territories, Feb. 11, 1946, U.S.-U.K., 60 Stat. 1499, 3 U.N.T.S. 253 [hereinafter Bermuda I Agreement].

¹¹⁶ JONSSON, *supra* note 71 at 34.

¹¹⁷ See Salacuse, *supra* note 48, at 827.

Today, the bilateral model is still the approach that most states use regarding regulation of foreign air traffic. As of 1997, there were approximately 1200 such agreements in place.¹¹⁸ Despite the failure of the Chicago Conference to achieve to achieve a comprehensive freedom of the air regime, because bilateral agreements are based on commercial freedom of the air, they are at least a step towards overall freedom of airspace.¹¹⁹

V. The Application Of State Sovereignty Over Airspace—The Current U.S. Airspace Sovereignty Regime

The United States domestically implements the international law of airspace sovereignty through a series of statutes and regulations. It last codified its claim of exclusive sovereignty over its airspace with passage of the Federal Aviation Act of 1958.¹²⁰ This Act also created the Federal Aviation Administration (“FAA”)¹²¹ and gave the FAA regulatory power over United States’ airspace.¹²² The FAA is an agency of the Department of Transportation.¹²³ It regulates and generally controls the national airspace system.¹²⁴

¹¹⁸ See DIEDERIKS-VERSCHOOR, *supra* note 99, at 51.

¹¹⁹ These agreements have helped the U.S. maintain a robust airline industry. Many European airlines have to be heavily subsidized in order to survive. It is interesting to note, that some developing nation’s air carriers are prepared to compete with the U.S. on a more liberal basis than are many established European powers. See Salacuse, *supra* note 48, at 837. The U.S. airline industry continues to rapidly evolve and adapt nearly 25 years after the Airline Deregulation Act of 1978, Pub. L. No. 95-504, 92 Stat. 1705 (1978).

¹²⁰ See Federal Aviation Act of 1958, Pub. L. No. 85-726, § 1108(a), 72 Stat. 749, 798 (1958) (codified as amended at 49 U.S.C.A. § 40103 (West 1997) (stating “[t]he United States Government has exclusive sovereignty of the airspace of the United States”). The U.S. had already asserted sovereignty over its airspace by means of the Air Commerce Act of 1926, ch. 344, 44 stat. 568 (1926).

¹²¹ § 301(a).

¹²² § 307.

¹²³ § 106. The responsibilities of the FAA are further delineated at 49 C.F.R. § 1.4(c) (2000).

¹²⁴ 49 U.S.C.A. § 40103(b) (West 1997).

There are exceptions in certain cases involving issues of national security. For example, military authorities may deviate from air traffic regulations when “essential to the national defense because of a military emergency or urgent military necessity.”¹²⁵ In wartime, the President may transfer any power of the FAA to the Secretary of Defense by executive order.¹²⁶ This is accomplished under the provisions of the Security Control of Air Traffic and Air Navigation Aids (“SCATANA”) Plan.¹²⁷ The Secretary of Transportation must also take into account input from the armed forces with regard to air traffic and allocation of airspace.¹²⁸

Consistent with the limits of international law, the United States has extended its territorial sea to 12 nautical miles from the baselines of U.S. territory.¹²⁹ Beyond its territorial sea, the United States does not appear to have a solid legal basis for claims of airspace sovereignty with the exception of control of its contiguous zone “necessary to prevent and punish the infringement of its customs, fiscal, immigration, or sanitary laws and

¹²⁵ *Id.* at § 40106(a).

¹²⁶ *Id.* at § 40107(b). In addition, FAA assets and personnel may also be transferred. *Id.* In order to expedite the transfer of control of the FAA to the Department of Defense, the President signed an executive order providing that the Secretaries of Defense and Transportation develop plans for such transfer. Under the Order, if deemed necessary by the Secretary of Defense, elements of the FAA may be placed under direct operational control of an appropriate military commander. During national emergencies short of war, the Secretary of Transportation must ensure essential national security requirements. *See* Exec. Order No. 11161, *reprinted as amended* in 49 U.S.C.A. § 40107 (West 1991).

¹²⁷ 32 C.F.R. § 245 (2001).

¹²⁸ 49 U.S.C.A. § 324(a)(1) (West 1997).

¹²⁹ Proclamation 5928, 54 Fed. Reg. 777 (Dec 27, 1988).

regulations.”¹³⁰ Nonetheless, there is an extensive system of Air Defense Identification Zones (“ADIZ”) whereby aircraft entering a U.S. ADIZ must make position reports to an appropriate air traffic control facility at least 15 minutes before penetrating the ADIZ.¹³¹ Aircraft intending to enter U.S. airspace must report their positions when between one and two hours cruising time from the United States.¹³² In addition, aircraft in a U.S. ADIZ must also comply with any “special security instructions issued by the [FAA] in the interest of national security.”¹³³

The mere requirement of identification of an aircraft in the ADIZ might not be considered an exercise of state sovereignty. However, requiring aircraft to comply with other rules, including “special security instructions” is assuredly an extension of jurisdiction, and thus, state sovereignty, over such aircraft. This practice has been justified on the basis of a contiguous zone-like enforcement power, that is, sovereignty over airspace lying over the contiguous zone should be the same as that over the seas below, or on the basis of necessity.¹³⁴ Under that theory, sovereignty of ADIZ airspace both in and outside of the contiguous zone is justified by doctrine of self-preservation and necessity.¹³⁵ Nonetheless,

¹³⁰ Kay Hailbronner, *Article: Freedom of the Air and the Convention on the Law of the Sea*, 77 AM. J. INT’L L. 490, 513-14 (1983).

¹³¹ 14 C.F.R. §§ 99.17, 99.19 (2001). See 14 C.F.R. Pt. 99, Security Control of Aircraft, for the complete rules.

¹³² § 99.23.

¹³³ § 99.7. Other requirements of Pt. 99 include filing a flight plan and using an assigned transponder code.

¹³⁴ JOHN TAYLOR MURCHISON, *THE CONTIGUOUS AIRSPACE ZONE IN INTERNATIONAL LAW* 52 (1956).

¹³⁵ *Id.* at 58-66. Murchison argues that Article 51 of the United Nations Charter authorizing individual or collective self-defense against an armed attack allows for application of international law of self-preservation and necessity in the creations of ADIZs. Because the speed of aircraft is so great, the requirement that there be “imminent danger” before a state resorts to self-defense “is no longer necessary to the doctrine of necessity.” *Id.* at 75.

according to some commentators, there doesn't appear to be a basis in customary international law for establishing ADIZs.¹³⁶ The practice merely "pretends to be in accordance with international law as justified by self-preservation or self-defence requirements . . . [but] cannot legally prevent foreign aircraft from enjoying freedom of air navigation over the high seas."¹³⁷

The more important issue is whether the United States has a right to destroy a civil aircraft that ignores ADIZ requirements and eventually enters U.S. airspace. It is difficult to imagine any circumstance that would warrant the destruction of a foreign aircraft in a U.S. ADIZ outside of U.S. national airspace.¹³⁸ However, while use of force against military aircraft intentionally intruding into a state's airspace is probably settled customary international law,¹³⁹ use of force against a civil airliner is far less clear. The Chicago Convention does not categorically prohibit the use of force against a civil aircraft. Article 3(d) states that the contracting states "will have due regard for the safety of navigation of civil aircraft."¹⁴⁰ Annex 2 of the Convention discusses the interception of aircraft and states

¹³⁶ Kay Hailbronner, *The Legal Regime Of The Airspace Above The Exclusive Economic Zone*, 8 AIR L. 30, 42-43, (1983).

¹³⁷ MAREK ZYLICZ, *INTERNATIONAL AIR TRANSPORT LAW* 61 (1992).

¹³⁸ Use of force against an aircraft carrying a known weapon of mass destruction may be such a case under the doctrine of anticipatory self-defense.

¹³⁹ Major John T. Phelps, *Contemporary International Legal Issues—Aerial Intrusions By Civil And Military Aircraft In Time of Peace*, 107 MIL. R. REV. 255, 292 (Winter 1985). Even in cases where the intruding aircraft is military, the use of force is not justified if the aircraft is in distress or the intrusion is unintentional. However, the threshold with regard to the use of force is much lower, except possibly where the military aircraft is clearly a transport. *Id.* This is because military aircraft are "state" aircraft for purposes of the Chicago Convention and thus excluded from the scope of the protections of the Convention. See Kay Hailbronner, *Freedom of the Air and the Convention on the Law of the Sea*, *supra* note 130, at 492; Chicago Convention, art. 3(a), *supra* note 100.

¹⁴⁰ See Chicago Convention, art. 3(d), *supra* note 100.

that "intercepting aircraft *should* refrain from the use of weapons in all cases of interception of civil aircraft."¹⁴¹ Yet, despite numerous incidents of civil airliners being shot down while accidentally being in the territorial airspace of a state, none of the offended states have claimed an "unqualified right to use force against the intruding airliner."¹⁴² Thus, despite theoretical absolute sovereignty in national airspace, customary state practice seemingly limits execution of that absolute right. Nevertheless, growing concern over the issue, especially after the Soviet shootdown of a Korean airliner in 1993, led ICAO to draft an amendment to the Chicago Convention. The amendment essentially codified what states already generally considered to be recognized rules of customary international law.¹⁴³ The amendment was adopted unanimously by the contracting states.¹⁴⁴ It came into force in 1998 but has not been ratified by the United States.¹⁴⁵ The terrorist events of September 11, 2001 will almost certainly have a significant impact on whether the amendment will ever be ratified by the United States.¹⁴⁶

¹⁴¹ See ICAO, International Standards, Rules of the Air, Annex 2 to the Convention on International Civil Aviation (9th ed. 1990) (emphasis added).

¹⁴² William J. Hughes, *Aerial intrusions by civil airliners and the use of force*, 45 J. AIR L. & COM. 595, 614 (Spring 1980). Bulgaria, Israel, China, and the Soviet Union (on several occasions) have attacked civil aircraft that have violated their airspace borders. See Phelps, *supra* note 139, at 293.

¹⁴³ International Civil Aviation Organization (ICAO) Doc. 9437, A25-Res. (May 10, 1984), reprinted in 23 INT'L LEGAL MATERIALS 705 (1984) [hereinafter Article 3 *bis*]; Zylicz, *supra* note 137, at 69. Article 3 *bis* reads in part "[t]he Contracting States recognize that every state *must* refrain from resorting to the use of weapons against civil aircraft in flight" Article 3 *bis* at § 3(a) (emphasis added).

¹⁴⁴ See International Civil Aviation Organization (ICAO) Doc. 9437, A25-Res. (May 10, 1984), reprinted in 23 INT'L LEGAL MATERIALS 705 (1984).

¹⁴⁵ The Protocol to amend the Chicago Convention relating to Article 3 *bis* entered into force on 1 Oct. 1998 after ratification of the required 102 States. As of March 1999, 104 States had ratified the Protocol. See *United Nations*, *supra* note 109, at 970.

¹⁴⁶ Even though not ratified by the U.S., Article 3 *bis* is considered to be a codification of customary international law. See Theodore Meron, *Symposium: The Hague Peace Conferences: The Martens Clause*,

It is evident from U.S. law that the United States asserts absolute sovereignty over its national airspace. Nonetheless, several forces have been moving the United States and the rest of the global community to change traditionally held notions that absolute airspace sovereignty is an unchanging international law norm. These forces are challenging the way states define airspace sovereignty in a world where traditional views about sovereignty are weakening.

VI. Current Forces for Change in Airspace Sovereignty

A. *Economics and Airspace Sovereignty—The Global Air Economy*

What has become clear in the last few decades is that the economic aspects of airspace sovereignty have dominated change, or the lack thereof, in the international air sovereignty regime. Essentially, the laissez-faire proponents have continued to advocate freedom of the air with unrestricted competition, while proponents of economic control have generally advocated absolute airspace sovereignty as a tool of maintaining control and ensuring survival of their national flagship carrier(s). Of course, national security concerns are always present, but the driving force in the development of air sovereignty law has been decidedly economic in nature.

For example, starting in 1976, the British government, perceiving inequities in the Bermuda I Agreement, demanded that a new bilateral air transportation agreement with the

Principles of Humanity, and Dictates of Public Conscience, 94 AM. J. INT'L L. 78, 83 (2000). How the U.S. applies this customary law in light of this new threat remains to be seen. See discussion *infra* Part VIII.

United States be negotiated.¹⁴⁷ These inequities consisted of the difficulty British air carriers were having because of the development of high-capacity wide-bodied aircraft in the United States. This created an overcapacity problem at the same time fuel prices were escalating. The British carriers turned to the British Government for help.¹⁴⁸ Heated negotiations began and resulted in the Bermuda II Agreement,¹⁴⁹ under which the United States lost most Fifth freedom rights it previously had such as the right to pick up traffic in Great Britain and take to other European cities. The United States also agreed to express controls on capacity. This agreement signified an even further departure from the limited free enterprise position of Bermuda I towards an internationally regulated industry—something that the British wanted all along.¹⁵⁰ The British did not want an equal opportunity to compete with the United States but rather an equal share of the benefits of the commercial aviation business between the two countries. In other words, the British wanted to gain a bigger share of the air-traffic by using its airspace sovereignty as a bargaining tool.

Other attempts were made to economically control air transportation. ICAO unsuccessfully tried to assert itself into the air transportation ratemaking process in the 1950s.¹⁵¹ The International Air Transport Association ("IATA"), a private organization of

¹⁴⁷ See JONSSON, *supra* note 71, at 36.

¹⁴⁸ See Salacuse, *supra* note 48, at 835.

¹⁴⁹ Agreement Between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland Concerning Air Services, July 23, 1977, U.S.-U.K., 28 U.S.T. 5367, T.I.A.S. 8641, *as amended*, Apr. 25, 1978, 32 U.S.T. 524, T.I.A.S. 8965.

¹⁵⁰ See Salacuse, *supra* note 48, at 836.

¹⁵¹ See ZYLICZ, *supra* note 137, at 87.

scheduled airlines created in 1919,¹⁵² also began attempting to economically regulate international air travel. This occurred primarily because Bermuda I, and many other bilateral air agreements, contained IATA tariff setting clauses that were subject to the approval of aviation authorities of the parties.¹⁵³ Since most of the world's airlines were also run by the various states, there was a lot of incentive to use state control over civil aviation policies to use restrictive airspace sovereignty in order to withdraw air traffic rights from other states.¹⁵⁴ The United States reacted to these attempts to limit the commercial freedoms of the air by aggressively attempting to establish new agreements that would be much more free market oriented.¹⁵⁵ Thus began an aggressive movement towards broad agreements to open up national airspaces to foreign commercial traffic.

B. Transitioning to an Era of Open Skies

In 1992, the United States announced a new "Open Skies" policy.¹⁵⁶ The policy had eleven provisions designed to ease restrictions on commercial aviation.¹⁵⁷ For freedom of the air purposes, the relevant provisions included open entry on all routes to and from the United

¹⁵² See DIEDERIKS-VERSCHOOR, *supra* note 99, at 43.

¹⁵³ *Id.* at 52.

¹⁵⁴ See Abeyratne, *supra* note 103, at 17.

¹⁵⁵ See JONSSON, *supra* note 71, at 36. Many of these bilateral agreements relied to a greater extent on market forces in determining capacity, frequency, market entry, and pricing. The U.S. demanded that any of its carriers be allowed to enter and leave routes at will and unilaterally create low-fare pricing. In return, the U.S. would open new gateway routes into the United States. The U.S. also threatened to divert present traffic to neighboring states if agreement was not reached. *Id.*

¹⁵⁶ In the Matter of Defining "Open Skies," Department of Transportation Order No. 92-8-13, 1992 DOT Av. LEXIS 586, 1 (Aug. 13, 1992), cited in Adam L. Schless, *Open Skies: Loosening the Protectionist Grip on International Civil Aviation*, 8 EMORY INT'L L. REV. 435, 446 (1994).

¹⁵⁷ See Schless, *supra* note 156, at 447.

States, unrestricted capacity and frequency on all routes, and no restriction as to intermediate stops.¹⁵⁸ The United States signed the first Open Skies agreement with the Netherlands in September 1992.¹⁵⁹ As of 2000, eight members of the European Union ("EU") had concluded Open Skies agreements with the United States.¹⁶⁰

As a result of the opening up of U.S. and various EU states' skies, the European Commission formally protested, arguing that the conclusion of Open Skies agreements with the United States by member EU states were unfair because it "[took] away the possibility for the EU carriers to compete on a fair and equal basis."¹⁶¹ Its reasoning was that states that did not have Open Skies agreements with the United States were seeing their air traffic siphoned off by the EU states that had concluded Open Skies agreements with the United States.¹⁶² The EU's concern was not the derogation by member states of sovereignty over their respective airspaces, but rather, the effects such derogation could have on the national air carriers of the more protectionist member states. The EU's goal is creation of a common EU traffic market that can compete against the United States. Thus, with the EU in control of the bargaining process for all the member states, the EU states would trade away their

¹⁵⁸ See Schless, *supra* note 156, at 447-50.

¹⁵⁹ Agreement Between the United States and the Netherlands Amending the Agreement of April 3, 1957, as Amended and the Protocol of March 31 1978, As Amended, Oct. 14, 1992, U.S.-Neth., T.I.A.S. 11976; Schless, *supra* note 156, at 447.

¹⁶⁰ Henri Wassenbergh, *Common Market, Open Skies and Politics: A Bald Eagle's-Eye View of Today's Air Transport Regulation*, 25 AIR & SPACE L. 174, 175 (2000).

¹⁶¹ *Id.*

¹⁶² *Id.*

individual freedom to independently enter into air transportation agreements with third countries as they see fit.¹⁶³

In addition to the opening up of national airspaces through the use of air traffic agreements such as Open Skies, other realities are forcing changes in the way states view absolute control over their national airspaces. The booming growth in civil aviation over the last several decades has led to innovative attempts by states to solve their airspace capacity problems. In several ways, these ideas will directly impact the ability of states to control their national airspaces.

C. Free Flight and the National Airspace System Operational Evolution Plan

In June 2001, the Federal Aviation Administration released a ten-year Operational Evolution Plan ("OEP") to dramatically change the way the United States controls its national airspace. The purpose of the OEP is to respond to the increasing capacity-demand imbalance within the U.S. National Airspace System ("NAS"), as the present U.S. system simply cannot handle the volume of commercial traffic desiring to use it.¹⁶⁴ With regard to airspace control, the OEP envisions implementation of new tools allowing pilots much greater freedom to navigate within the NAS.¹⁶⁵ Among these is a major initiative to

¹⁶³ *Id.* at 178.

¹⁶⁴ See Federal Aviation Administration, Operational Evolution Plan 3.0 (June 5, 2001) (on file with author) [hereinafter OEP]. Version 3.0 the OEP was replaced after the events of Sept. 11 by version 4.0 and is no longer available. The differences between the two versions of the OEP are minimal. See *infra* note 205 and accompanying text.

¹⁶⁵ See *id.* at 1. Under the OEP, the FAA designed a three-phase approach to meet increasing demand. It identifies four capacity demand problems that need to be solved: 1) arrival/departure rates; 2) airport weather

implement the "Free Flight" concept. Under this concept, pilots operating under instrument flight rules ("IFR") would no longer have to fly pre-designed air routes between various preset points within the United States. Instead, they would have the freedom to select their path and speed in real time.¹⁶⁶ The ability to implement the system is dependant on a variety of new technologies, including the use of the Global Positioning System ("GPS"). Some of the technologies would allow aircraft to detect their location and the location of other aircraft within certain distances.¹⁶⁷ As a result, pilots would be free to use these technologies to avoid other traffic and create the most efficient route to the respective destination. Other technologies would allow the FAA to reduce current traffic separation requirements and more accurately predict upcoming areas of congestion. As a result, the FAA could notify pilots so they could find their own routes to avoid chokepoints.¹⁶⁸

The implementation of the Free Flight system impacts state sovereignty in its airspace in several ways. First, the use of electromagnetic signals, such as those generated using the GPS system, necessary entail the penetration of state airspace by those signals.¹⁶⁹

conditions; 3) en route severe weather; and 4) en route congestion. Multiple solutions have been proposed to solve each of these major problems. These proposed solutions include technology, infrastructure, and airspace control ideas. *Id.* at 3-9.

¹⁶⁶ Allison K. Lawter, *Free Flight or Free Fall?*, 62 J. AIR L. & COM. 915, 923 (1997). Under the Free Flight concept, the route and speed of the aircraft would only be limited to ensure separation from other aircraft, avoid special use airspace, and avoid overloading airport capacity. *Id.*

¹⁶⁷ *See id.*

¹⁶⁸ *See OEP, supra* note 164, at 4.

¹⁶⁹ Bill Elder, *Comment: Free Flight: The Future of Air Transportation Entering the Twenty-First Century*, 62 J. AIR L. & COM. 871, 896-97 (1997). Elder, a former airline and naval pilot, argues that the use of GPS, although a definite intrusion into the sovereign airspace of other states, has not met the same resistance as other types of signals such as direct broadcasting signals (DBS). Intrusion into state airspace by DBS was hotly contested in the United Nations as protesting states feared the negative cultural influences that could result from DBS transmissions. Since that time, intrusions with signals by other electromagnetic systems have met with far

Secondly, and more importantly, because Free Flight gives control to the pilots to select the most advantageous and economical route, a pure Free Flight system does not anticipate the a necessity of getting clearances before entering the airspace of another state. Thus, absent acquiescence by states to allow commercial traffic to enter their respective airspaces under the Free Flight system, changes to the Chicago Convention will be required.¹⁷⁰ Whether such changes would be focused on helping maintain the illusion of the Convention's basic principal of absolute airspace sovereignty, or on fundamentally transforming the Chicago system, is difficult to predict.

Notwithstanding the implementation of such changes, under the Free Flight system, control over aircraft is transferred to the pilots from ground controllers. In the United States, these controllers work for the FAA and represent U.S. governmental power over the aircraft. Because of their nature, commercial aircraft represent the sovereign to which they belong. Under Article 17 of the Chicago Convention, "an aircraft receives the nationality of the state in which it is registered."¹⁷¹ Consequently, the handing over of navigational control of foreign aircraft to the pilots of those aircraft under the Free Flight system is arguably a

less resistance because the value of the services offered offset objections to possible negative cultural influences. *Id.*

¹⁷⁰ See *id.* at 897-98.

¹⁷¹ See ZYLICZ, *supra* note 137, at 67 (quoting Chicago Convention, art. 17, *supra* note 100). The aircraft nationality relationship is *sui generis*, i.e. unique, in international law. An aircraft's nationality helps determine the scope of the application of rules where typical territorial or personal jurisdiction based criteria do not work well. The development of flightcraft, commercial air traffic alliances, and state registration of aircraft by non-citizens, are challenges to the present system. They are often considered to be a hindrance to the growth of the international air transportation system. *Id.* at 67-68. For example, with emerging technology, flightcraft (aircraft having the ability to operate in the atmosphere and in space) will have the ability to transition between the air and space during flights. This would necessarily mean the aircraft would be subject to two diametrically opposed legal regimes—airspace sovereignty and freedom of outer space. Consequently, the same aircraft could be subject to the application of myriad rules as between the two systems relating to issues such as jurisdiction.

derogation of state sovereignty over control of its airspace—though the state takes such action willingly. Naturally, the willingness of a state to transfer some of its airspace sovereignty under such a system would be, in large part, due to the reciprocal economic benefit it receives from its national carriers being able to take similar advantage of a Free Flight system in other states. Nonetheless, even if other states do not implement Free Flight systems, the OEP's extensive discussion of Free Flight tools makes clear that the U.S. march toward opening U.S. airspace internally through the use of Free Flight is inevitable.¹⁷²

D. Merging Sovereignty With the Single European Sky

By far the most remarkable example of a new way of looking at absolute airspace sovereignty has been development of the Single European Sky within the EU—a development consistent with the EU's overall purpose. Since creation of the EU, the absolute sovereignty principle of the Chicago Convention has been an anathema to the EU's goals. Established by the Treaty of Rome in 1957,¹⁷³ the EU included as one of its objectives “the abolition of obstacles to freedom of movement for persons, services and capital, and the adoption of a common transport policy. These objectives necessarily involve some transfer of sovereignty to the Community.”¹⁷⁴ Since that time, the EU has slowly implemented a

¹⁷² See OEP, *supra* note 164, at 4-8. See also, Bruce Nordwell, *Free Flight Benefits Anticipated As FAA Deploys Controller Aids*, AVIATION WEEK AND SPACE TECHNOLOGY (Nov. 2, 2001), available at http://www.aviationnow.com/avnews/channel_busav.jsp?view=story&id=news/batc11 (stating that the first phase of free flight will cost the FAA \$600 million through the end of 2002).

¹⁷³ Treaty Establishing the European Economic Community, *opened for signature* Mar. 25, 1957, 298 U.N.T.S. 11 (entered into force Jan. 1 1958).

¹⁷⁴ Karl-Heinz Bockstiegel & Paul Michael Kramer, *Filling in the Gaps of the Chicago Convention: Main Features of the New Legal Framework For Aviation in the European Community*, ANNALS OF AIR & SPACE L. 127, 129 (1994).

series of regulations designed to overcome the protectionist nature of the European states with regard to commercial aviation. The regulations were intended to install more market-oriented principles and were largely implemented by 1993.¹⁷⁵ However, these changes have not been enough given the growth of economic globalization, which continues to decrease the importance of traditional notions of sovereign borders.¹⁷⁶ It has also resulted in considerable debate concerning the future of sovereignty over airspace with commentators calling for consideration of a new way of looking at state sovereignty.¹⁷⁷ To do so is critical because “[no] effective or efficient solution for the future will be found unless the notion of sovereignty is reconsidered, and applied in a different way.”¹⁷⁸ With implementation of its idea to create a single European Sky, the EU is doing just that.

In October 2001, the Commission of the European Communities (“EC”) announced proposals for a framework regulation aimed at creating a single European sky by 31 December 2004.¹⁷⁹ In announcing the proposals, the Commission Vice-President with

¹⁷⁵ See *id.* at 132. This approach contrasted markedly from the deregulation approach taken in the United States following the Airline Deregulation Act of 1978, Pub. L. No. 95-504, 92 Stat. 1705 (1978). “Europe needed *more* regulation to phase out the traditional aviation structure where almost every market activity had to be approved” Bockstiegel, *supra* note 174, at 132 (emphasis supplied).

¹⁷⁶ Francis P. Schubert, *The Creation of the Single European Sky*, 25 ANNALS OF AIR & SPACE L. 239, 246 (2000). Schubert argues that State powers with regard to security and national defense are “the core elements of sovereignty.” Thus, while other traditional State powers may have been integrated into the overall understanding of sovereignty, these can be separated out and delegated to other States or multi-national organizations without infringing on core sovereignty. Accordingly, a new definition of sovereignty is not needed, “merely new ways of exercising sovereign powers.” *Id.* at 259. This type of argument is frequently used to convince the defenders of sovereignty that none of a state’s sovereign powers are being lost while, at the same time, explaining how sovereign powers are being performed by non-state actors.

¹⁷⁷ *Id.* at 248.

¹⁷⁸ *Id.* at 247.

¹⁷⁹ A Single European Sky In 2004—Towards a More Efficient and Safer Airspace, Press Release IP/01/1398, available at <http://www.iata.org/oi/committees/europawg/~files/A%20single%20European%20sky%20in%202004.doc>.

special responsibility for transport and energy stated “Europe’s citizens will at last be able to fly in a European Sky unhampered by frontiers while enjoying the highest possible level of aviation safety.”¹⁸⁰ The EC proposal aims for integration of Air Navigation Services, interoperability of air traffic management, and organization and use of airspace.¹⁸¹ It will create a European upper airspace zone “conceived as a single airspace without frontiers . . . [and] is created by merging the 15 regions into a single portion of airspace.”¹⁸² Among the motivating forces for moving to creation of the single European airspace is the issue of aviation safety and security in the face of an ever-increasing air traffic volume. The EC also used the terrorist attacks in the United States on September 11, 2001 as further justification for the need to create a framework agreement.

[T]he attacks of 11 September in the United States have demonstrated the need for better integration of security aspects in air traffic management through better integration and harmonization of procedures and technologies and better coordination between all stakeholders, including military ones. Implementing the single sky will make it possible to prevent and manage crises more effectively.¹⁸³

¹⁸⁰ *Id.*

¹⁸¹ Communication from the Commission to the Council and the European Parliament on the Implementation of the Single European Sky, COM (2001)564final(2) at 1, *available at* http://europa.eu.int/comm/transport/themes/air/library/comm_2001_0564_f2_en_reg.pdf.

¹⁸² *Id.* at 8. Efficiency rather than protection of European air traffic is the motivation towards elimination of national airspace boundaries within the European Community. The Commission proposals are designed, among other things, to complement previous implementation of the Flexible Use Airspace system. This system operates on the principle that “airspace should no longer be designated as either pure civil or military airspace, but rather be considered as one continuum in which all airspace users have to be accommodated to the extent possible.” *Id.* at 9. Under Flexible Use Airspace, designations of airspace as either military or civilian are temporary in nature.

¹⁸³ *Id.* at 3. Unlike actions taken in the United States following September 11, 2001, the EC opined that the terrorist attacks “did not diminish but rather reinforce[d] the need for a Single European Sky.” *Id.* Actions by the United States were in stark contrast. *See discussion infra* Part VII.

As can be seen, this proposal is a vivid example where the EU states have “left the role which the Chicago Convention attributed to them and disclaimed their traditional sovereign rights to influence the economic aspects of aviation. The European heritage of the Chicago Convention has been gradually converted into an integrated system based on multilateral principles.”¹⁸⁴ Of course, the transition to the Single European Sky will not be without logistical difficulties. The challenges posed in integrating operations in the national airspaces of the entire EU are formidable given the number of national airspaces, as well as the plethora of civilian and military users of those airspaces. Nonetheless, the willpower of the EU to take on such a daunting task is incontrovertible evidence that the absolute airspace sovereignty regime is crumbling in Europe. The EC clearly believes that the reasons for change outweigh traditional considerations of sovereignty.

Along with Open Skies efforts and the FAA’s OEP, the proposal to create the Single European Sky demonstrates that factors beyond state interests in maintaining complete sovereignty over national airspace are slowly drawing states away from the Chicago Convention’s absolute sovereignty formula. In the past these forces were primarily economic and will continue to be the driving force for change. Nonetheless, given the growth in air traffic, an underlying need for efficiency and air safety have added to the momentum towards change—a change resulting in the continuing erosion in the absolute airspace sovereignty doctrine. Creating a Single European Sky is proof of that.

VII. September 11th—A Temporary Retreat to Absolute Control

¹⁸⁴ Bockstiegel, *supra* note 174, at 132-33.

“Aviation security is now national security.”¹⁸⁵

Those words by the United States Federal Aviation Administrator summarized a dramatic change of in U.S. focus regarding its national airspace following the devastating air attacks on September 11, 2001. A “new era in commercial aviation” had begun.¹⁸⁶ Following the attacks, the FAA issued a series of airspace restrictions under its emergency authority to make air traffic rules.¹⁸⁷ Airspace within 18 nautical miles of Washington D.C. was placed off-limits to most aircraft and substantial restrictions were placed over use of airspace surrounding Boston and New York.¹⁸⁸ Washington’s Ronald Reagan National Airport was closed.¹⁸⁹ Notices were also issued warning that aircraft entering newly established or existing prohibited or restricted areas were subject to being “forced down” and that the U.S. military was authorized to use deadly force to protect the areas from

¹⁸⁵ BAV: *Garvey Vows to Continue Push to Open Airspace*, THE WEEKLY OF BUSINESS AVIATION, Nov. 12, 2001, available at http://www.aviationnow.com/avnow/news/channel_busav.jsp?view=story&id=news/bbav1112.xml.

¹⁸⁶ *FAA Mourns Fallen, Prepares for New Era In Commercial Aviation*, FAA INTERCOM, Oct. 2001, at 6 [hereinafter *FAA Mourns*]. Several of the actions taken in response to the Sept. 11 attacks are related to airspace control, but most of the changes involve security programs at airports and on board aircraft. As of Oct. 2001, \$500 million was set-aside to implement safety improvements including airport access control, cockpit access, cameras for pilots to monitor passenger compartments, and automatic transponders that cannot be powered off. See *id.* at 7.

¹⁸⁷ See 14 C.F.R. § 91.139. This regulation authorizes the FAA Administrator to make determinations that emergency conditions exist related to the FAA’s ability to conduct safe flight conditions. Rules made in response to the emergency condition are communicated to aviators through the use of Notices to Airman (NOTAMS).

¹⁸⁸ See e.g., FAA NOTAM !FDC 1/0989, Oct 5, 2001 (prohibiting all general aviation aircraft within 18nm of Washington National Airport); FAA NOTAM !FDC 1/2293, Nov. 9, 2001 (partially restricting airspace around the New York metropolitan area). Restrictions around these areas were modified in Dec. 2001, but essentially remain the same. See <http://www.faa.gov/NTAP/SpecialNotamListing.htm> for a complete and updated listing of NOTAMS since Sept. 11, 2001.

¹⁸⁹ See *FAA Mourns*, *supra* note 186, at 6.

unauthorized incursion.¹⁹⁰ To enforce this, U.S. fighter aircraft patrolling U.S. airspace were increased and placed on high alert.¹⁹¹

New rules were also placed on air traffic originating outside the United States. For example, general aviation aircraft operating under visual flight rules¹⁹² were prohibited from entering U.S. territorial airspace except under limited circumstances.¹⁹³ Air carriers from states other than Canada and Mexico, flying larger aircraft, which required the carrier to have a security program in place, were also restricted from entering U.S. airspace except on a case-by-case basis.¹⁹⁴ The FAA also implemented new rules under expedited procedures for aircraft operating into and within a U.S. ADIZ under its authority for security control of aircraft.¹⁹⁵

¹⁹⁰ See FAA NOTAM !FDC 1/0609 (Sept 28, 2001). The notice states that “deadly force will be used only as a last resort, after all other means are exhausted.” *Id.* Later guidance reaffirmed U.S. policy and urged pilots to become familiar with military intercept procedures. See H. Dean Chamberlain, *National Security and Interception Procedures*, FAAVIATION NEWS (Jan./Feb. 2000), available at <http://www.faa.gov/avr/afs/news/>. As previously suggested, the U.S. terrorist attacks will likely have a profound effect on the future application of international law regarding if and when civil aircraft may be shot down by a state. See *infra* Part VIII.

¹⁹¹ William B. Scott, *NORAD, Fighters on High Domestic Alert*, Aviation Week and Space Technology (Oct. 1, 2001) available at <http://www.aviationnow.com/content/publication/awst/20011001/aw37.htm>.

¹⁹² Visual Flight Rules (VFR) refers to rules govern procedures for conducting flight under visual conditions. VFR is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. 14 C.F.R. § 170.3 (2001). VFR traffic is typically under less control of ground controllers than IFR traffic. Almost all airline traffic operates under IFR.

¹⁹³ See FAA NOTAM !FDC 1/3356 (Dec. 19, 2001), available at <http://www.faa.gov/NTAP/Special%20Interest%20Notams.htm#!FDC%201/3356>.

¹⁹⁴ *Id.*

¹⁹⁵ Security Control of Aircraft, 66 Fed. Reg. 49818 (FAA Sept. 28, 2001). The FAA used its authority to issue the new requirements as a final rule with requests for comments, with an effective date Nov. 13, 2001. The rule formally extended U.S. ADIZs out to the 12nm territorial limit pursuant to Presidential Proclamation 5928 and created requirements for aircraft in U.S. ADIZs to file and close flight plans and continuously monitor an assigned aeronautical facility frequency. See *id.* at 49819. The notice does not mention the attacks of Sept. 11 as a basis, rather, control of aircraft engaging in drug trafficking is cited. Nonetheless, it is facially evident that the timing of the rule and the use of expedited procedures were determined with the Sept. 11 attacks fresh in the minds of the rule makers.

As can be seen, the immediate action of the United States after September 11 was either more strict enforcement of existing airspace control laws or creation of new rules, all of which indicated a strong U.S. assertion of absolute airspace sovereignty over U.S. territorial airspace. Security concerns overcame economic freedom as the primary focus. The greatest concern has clearly been airlines flying into U.S. airspace, given their heavy weight and larger fuel loads.¹⁹⁶ The reasons for concerns naturally arise from the evident destructive power of an airliner as compared to smaller aircraft. However, concern over control of smaller aircraft flying over U.S. territory is also evident. For example, all aircraft are now prohibited from flying within several miles of any major sporting event or other large public gathering and have been warned not to loiter near sensitive areas such as nuclear power plants.¹⁹⁷ Naturally, the security of air operations around Washington D.C., where many of the United States' symbols of sovereignty lie, is of the highest priority. It is highly likely these restrictions will continue until security on board aircraft flying into and over United States territory is dramatically improved.

VIII. The Security Question After September 11

¹⁹⁶ Several of the post-Sept 11 NOTAMS restrict air traffic operators operating aircraft at a gross takeoff weight of more than 95,000 pounds unless they have an existing security program. *See e.g.*, FAA NOTAM !FDC 1/3356, (Dec. 19, 2001), *available at* <http://www.faa.gov/NTAP/Special%20Interest%20Notams.htm#!FDC%201/3356>.

¹⁹⁷ *See* FAA NOTAM !FDC 1/3352 (Dec. 19, 2001) (prohibiting flights within 3nm of a major sporting events or assembly of people); FAA NOTAM !FDC 1/3353 (Dec. 19, 2001) (stating that "in the interest of national security, and to the extent practicable, pilots are advised to avoid the airspace above, or in proximity to, sites such as nuclear power plants, power plants, dams, refineries, industrial complexes, and other similar facilities. pilot should not circle as to loiter in the vicinity of such facilities), *available at* <http://www.faa.gov/NTAP/Special%20Interest%20Notams.htm#!FDC%201/3352>.

The events of September 11 emphasized the immediate security needs of states for protection from civil aircraft intended for use as a weapon. They also required a reevaluation of the rules governing the use of force against aircraft flying in territorial airspace. State security will certainly be a first priority in further negotiations over airspace sovereignty issues, especially in the United States, which felt the direct impact of the attacks. The events of September 11 may also raise concerns involving the safety of a state's civil aircraft and citizens while they are flying over other states. There is real possibility that the September 11 attacks may have lowered the international law threshold for shooting down a civil airliner, despite the prohibitive language of Article 3 *bis*.¹⁹⁸ Some states may now be more inclined to risk international wrath by shooting down another state's airliner if it perceives a risk that the aircraft may become a weapon—a so-called “shoot now, talk later” approach.

The future of Article 3 *bis* itself may be in doubt. Its “must refrain” language may have to be amended to explicitly reflect a state's use of force against a civil aircraft upon reasonable belief that such aircraft will be used as a weapon against the state. A more precise definition of “civil aircraft” also needs to be created to take into account the use of a non-state aircraft being used by terrorists as a weapon, with or without innocent civilians on board.¹⁹⁹ The language in Article 3 *bis* preserving the rights of states to self-defense under the United Nations Charter may prove to be overly ambiguous given the negative world attention typically focused on the use of force against an airliner with innocent civilians

¹⁹⁸ See Article 3 *bis*, *supra* note 143, at § 3(a).

¹⁹⁹ See ZYLICZ, *supra* note 137, at 70. Zylicz presciently recognized that a civil aircraft could be used as an instrument of a terrorist attack, but only foresaw the possibility that such an aircraft would not be carrying innocent civilians. If the legal authority to shoot down a civil aircraft carrying terrorists is uncertain, the legal authority to shoot down one containing terrorists and innocent civilians is more unclear. The events of September 11 emphasized this uncertainty.

aboard.²⁰⁰ Nonetheless, it is clear that the United States is ready to use force against a civil airliner suspected of being used as a weapon regardless of whether civilians are on board.²⁰¹ In light of the way airliners were used as weapons on September 11, further movement towards open airspace will heavily depend on the ability of states to create a secure aviation system and have confidence that this security problem has been solved.

Nonetheless, despite the steep rise in concern over airspace security in the United States, other U.S. actions since September 11 suggest that the same steps that were resulting in a slow march towards opening airspace prior to September 11 have not been deterred by those terrible events. Immediate work began on a plan to reopen National Airport for commercial air traffic in Washington D.C.²⁰² Blanket waivers of emergency rules restricting foreign aircraft from crossing U.S. borders were issued for all U.S., Canadian, Mexican, and

²⁰⁰ Art. 3 *bis*, *supra* note 143, at § 3(a). The Article states that the prohibition on the use of force against a civil aircraft in flight "shall not be interpreted as modifying in any way the rights and obligations of States set forth in the Charter of the United Nations." This would, of course, include the rights of self-defense under Article 51 of the U.N. Charter. U.N. CHARTER art. 51.

²⁰¹ See FAA NOTAM !FDC 1/0609, *supra* note 190.

²⁰² See, *A Regional Airspace Security Response to the Air Terrorism Threat to Our Nation's Capital*, Working Document; Report of the Ad Hoc Committee, Sept. 26, 2001, available at http://www.aviationnow.com/avnow/spSec/reopen_natl.jsp. The Ad Hoc Committee strenuously argued that National Airport should reopen, albeit with newly designed procedures that would be the international "gold standard" by which airport security is judged, and planes operating into and out of the airport "should set the benchmark for in-flight security." *Id.* at 8. These measures would be aimed at making it one of the most tightly controlled airport terminal areas in the world. With regard to aircraft operations other than commercial airlines, extensive efforts were being made to allow such operations at National Airport by March 2002. The proposed plan would have these aircraft operators apply and agree to comply with FAA issues security letters of authorization ("SLOAs"). The SLOAs "would verify the identity of crew and passengers and also outline specific operational practices." See Angela Kim, *NBAA Unveils Plan To Reopen National Airport*, THE WEEKLY OF BUSINESS AVIATION, Jan. 14, 2002, available at http://www.aviationnow.com/avnow/autonomy_samples/autonomysuggest/autosuggest.jsp?docid=30114&url=http%3A%2F%2Fwww.aviationnow.com%2Favnow%2Fnews%2Fchannel_busav.jsp%3Fview%3Dstory%26id%3Dnews%2Fbdca0114.xml

Bahamian aircraft.²⁰³ A major meeting intended to discuss implementation of Free Flight systems was held in December 2001.²⁰⁴ Even more telling was the FAA's re-issuance of a revised Operational Evolution Plan.²⁰⁵ While the OEP mentions the attacks of September 11, it is essentially the same document issued in June 2001.

Obviously, the reaction to the September 11 tragedy demonstrated that security issues lie at the heart of future changes in airspace sovereignty doctrine. What is interesting is that the European and U.S. approaches will continue to be different. The EU used the September 11 attacks to push even harder for the Single European Airspace, which would result in significantly reduced airspace sovereignty with an attendant ability to increase airspace security under the system.²⁰⁶ Under the U.S. approach, the opposite is true. Sovereignty will be strongly asserted over U.S. airspace at least until aircraft security can be adequately controlled. This is partly due to geography. The U.S. airspace system is much larger than any individual European states' airspace. Thus, the mere volume of airspace and lack of proximity to other states except Mexico and Canada, reduce the need for cross-state cooperation regarding airspace control. Accordingly, the U.S. approach to control of

²⁰³ *Garvey Vows to Continue to Push Open Airspace*, THE WEEKLY OF BUSINESS AVIATION, Nov. 12, 2001, at 1, available at http://www.aviationnow.com/avnow/autonomy_samples/autonomysuggest/autosuggest.jsp?docid=24756&url=http%3A%2F%2Fwww.aviationnow.com%2Favnow%2Fnews%2Fchannel_busav.jsp%3Fview%3Dstory%26id%3Dnews%2Fbbav1112.xml

²⁰⁴ Notice of RTCA Government/Industry Fee Flight Steering Committee Meeting, 66 Fed. Reg. 59044 (Nov. 26, 2001).

²⁰⁵ See *supra* note 164 and accompanying text. The latest revision, version 4.0, essentially maintains the FAA's move to revamping the U.S. national airspace system, including the implementation of Free Flight. See OEP, Version 4.0, available at <http://www.faa.gov/programs/oep/Director.htm>. In February 2002, the Director's Message on the first page of the OEP emphasizes having the faith and courage to "stick with the plan." *Id.* (emphasis supplied). This language disappeared in later versions of the Directors Message.

²⁰⁶ See *supra* note 183 and accompanying text.

airspace will continue to lie in the FAA's OEP and its focus on airspace use efficiency, including implementation of the Free Flight model,²⁰⁷ as well as continuing U.S. negotiations on Open Skies agreements.²⁰⁸ The pressure to continue a slow march away from the absolute air sovereignty model will persist in the United States and Europe, in different ways—with each way largely consistent with U.S. and EU views concerning the exercise of sovereignty generally. On the other hand, movement away from absolute airspace sovereignty by much of the rest of the world will lag behind due to political realities and a lack of economic benefit.

IX. Globalism and the Airspace Sovereignty Dichotomy

Despite the transforming events of September 11, there continues to be pressure on states to alter their perceptions of state sovereignty over airspace. On a greater scale, calls for states to alter the way that sovereignty itself is viewed are common.²⁰⁹ Nonetheless, unlike many other areas where the rise of pluralateralism is becoming normative in an increasingly globalistic world, rapid transformation in views of airspace sovereignty have not occurred. Rather, the movement away from traditional notions has been halting and deliberate. It would be foolish to argue that the forces for change in this area are producing a sea change in airspace sovereignty doctrine. Nonetheless, the EU, and to a lesser extent the

²⁰⁷ See discussion *supra* Part VI.C.

²⁰⁸ See discussion *supra* Part V.C.

²⁰⁹ See e.g., Daniel C. Thomas, *International NGOs, State Sovereignty, and Democratic Values*, 2 CHI. J. INT'L L. 389 (2001) (arguing that NGOs are increasingly effective in placing conditions on the exercise of state sovereignty). Examples include the World Trade Organization and the General Agreement on Tariffs and Trade, commonly called "GATT."

United States, are heading slowly and deliberately down a path towards more open skies using different approaches. In contrast, much of the rest of the world clings to the absolute sovereignty model. One reason for this is that economic forces for change in the burgeoning international air transportation market have run into barriers that do not stand in the way of other international enterprises.²¹⁰ First among these are the seemingly attractive attributes that accompany claims of airspace sovereignty, especially the economic leverage that airspace sovereignty provides to states.

As a result, wholesale movement towards a worldwide agreement on the free movement of air traffic is unrealistic. A number of forces are working against any such agreement. The demise of colonialism and the failure of numerous communist and neo-fascist states, led the emergence of a many small states. Each seeks international recognition and respect as an equal among states. Asserting maximum sovereign rights is one way to achieve those goals.²¹¹ With economic power spread more evenly, new centers of power are emerging, each with its individual interests. The traditions, cultures, and ideologies of these many new states have "vastly complicated the process of reaching agreement on international legal principles in general and international air law in particular."²¹² A case in point is that

²¹⁰ For example, unlike the airline transport industry, various other industries such as automobile manufacturers, energy companies, and hotel businesses set up multi-national companies that set their own price levels and take whatever actions seem desirable wherever opportunity exists. See Bockstiegel, *supra* note 174, at 128.

²¹¹ See Salacuse, *supra* note 48 at 834. Salacuse asserts that economic realities in most states are greatly hindering the ability to reach a new worldwide agreement on air law. The economic forces of free enterprise that move the wealthy states to seek to open airspace are viewed with suspicion—as a way to “merely allow the rich nations to become richer at the expense of the poor.” *Id.* This is a general view of many Third World jurists who view their lack of economic power when compared to the Western economic powers as a form of neo-colonialism. See Makau Mutua, *What is TWAIL?*, 94 AM SOC’Y INT’L L. PROC. 35 (1994).

²¹² See Salacuse, *supra* note 48, at 833-34.

for most states, the national airline, like a navy, gives the state the ability to assert its presence on the world scene as a direct arm of the government.²¹³ These states, therefore, have a vested interest in retaining total sovereignty over their airspaces in order to ensure the survival of their national flagship carriers.

However, it is more than nationalism that is keeping most states in the absolute airspace sovereignty camp. Once again, economic realities have proved to be a substantial force. As a symbol of the state, states are loath to have their national flagship carriers fail. They must survive even if substantial subsidizing of the carrier is necessary. Opening up sovereign airspace could drive these subsidization costs way up and threaten the survival of the national airline, which could occur as a result of a "full blast of market pressures."²¹⁴ Trading airspace rights gives such states the power to use their economic leverage against the large air transportation powers, thereby keeping competition from more efficient airlines at bay. Thus, the primary force preventing change is not who owns the air but rather, who owns the air traffic.²¹⁵

It is evident that economics more than any other factor is the dichotomous force that, at once, drives some states away from the absolute airspace sovereignty model and others towards it. The interests of smaller states in world recognition and assertion of their economic rights are opposed to interests in open skies and free competition. Accordingly,

²¹³ Bockstiegel, *supra* note 174, at 128.

²¹⁴ *Id.* at 128-29.

²¹⁵ See Salacuse, *supra* note 48, at 836.

economic aspects of airspace sovereignty are likely to dominate any future changes in the international air sovereignty regime so long as security concerns are satisfied. Laissez-faire proponents will continue advocating freedom of the air and unrestricted competition. Proponents of economic control will advocate either absolute airspace sovereignty or, as in the case of the EU, the pooling of sovereignty, as a tool to ensure survival of their national flagship airlines and their ability to compete in the global air transportation market. Economic advantage is driving both.

X. The Airspace Sovereignty Debate

Changes in airspace sovereignty are happening. It is occurring in different ways in the different states. Yet, there is substantial argument concerning whether these changes are really affecting the principle of absolute airspace sovereignty. One commentator asserts that “[t]ransformation of sovereignty in the air is not really occurring . . . [W]hat seems to be happening is an evolution in the exercise of national sovereignty.”²¹⁶ Another argues that the role of the sovereign is to provide security. Thus, if strengthening international law strengthens security, then the sovereign should delegate sovereign functions to an international body in order to do so.²¹⁷

Though attractive on their face, one weakness in these arguments lies in taking them to the extreme. For if the delegation of sovereignty to others is merely an exercise of

²¹⁶ Peter Haanappel, *The Transformation of Sovereignty in the Air*, 20 AIR & SPACE L. 311, 316-17 (1995).

²¹⁷ Ronald A. Brand, *The Role of International Law in the Twenty-First Century: External Sovereignty and International Law*, 18 FORDHAM INT’L L.J. 1685, 1696 (1995).

absolute sovereignty, then that sovereign's decision to delegate its entire sovereignty, that is, its very existence as a sovereign entity, is the logical end. It ultimately destroys itself by delegating away its sovereign functions. That such a result could occur in the face of the sovereignty absolutist's focus on survival of the state is difficult to reconcile. The same end result occurs if the sovereign simply abrogates its sovereignty. Thus, the two approaches are theories to the same end. The real issue is the political reality of whether sovereignty once delegated can realistically be retrieved at an acceptable cost to the state. If it cannot for whatever reason, then that portion of sovereignty has, for purposes other than pure argument, been given away. This more realistic approach is acknowledged by those who recognize that the

Chicago Convention's complete and exclusive sovereignty can be overcome to the benefit of all players. The European system, where functions and competence flowing from international law are transferred from member States to an international body, has proved to be able to move away from the stumbling blocks of national sovereignty, the links between national prestige and flag carriers and most of the absurdities in seeking a *quid pro quo* through bilaterally negotiating and renegotiating traffic rights. . . . [T]he historical mindset of aviation regulators must not necessarily be locked into the ramifications of Article 1 of the Chicago Convention.²¹⁸

On closer look, many of the proponents of the argument that "sovereignty delegated is not sovereignty lost" seem more interested in appeasing those who cling to the traditional notions of state sovereignty, than in acknowledging the political realities of the transformation of sovereignty.²¹⁹ Nonetheless, these realities must be acknowledged because evidence of a

²¹⁸ Bockstiegel, *supra* note 174, at 138.

²¹⁹ See e.g., Schubert, *supra* note 176, at 258. Schubert attempts to rebut the argument that renouncing a sovereign prerogative infringes on a state's sovereignty. He states that airspace sovereignty should simply be viewed from a different perspective. See *id.* at 247. Another author asserts that the delegation of sovereign functions to an international organization is not a release of sovereignty because the delegation does not have to be in perpetuity. Thus, even though it could be economically costly, the ability of a state to retrieve these

slow evolution in airspace sovereignty cannot be explained away as mere variations on absolute airspace sovereignty.

XI. Conclusion

To a certain degree, discussions about freedom of the air and airspace sovereignty are theoretical and a solution to the problem seems unsolvable. It is a complex problem that will remain to the extent that states persist in maintaining the fictions of the classical absolute airspace sovereignty doctrine. Nonetheless, continued evolution in international airspace law is an ideal area to lead states to depend less on the absolute sovereignty concepts and more on the promotion of peaceful economic relations. It is evident that many of the leading states of the world are heading in just that direction.

For most of the last several centuries the state sovereignty concept has flourished and seemingly had no limit in its reach except by technological limitations and the countervailing powers of other states. Advancing technology gave states the ability to extend their sovereignties much further than previously possible through claims of sovereignty in supra adjacent airspace. Most attempts at limiting sovereignty through the use of international agreements in the newly usable medium of airspace proved unsuccessful. Many states had legitimate security concerns. Even more importantly, holding onto the economic advantages

sovereign functions means that sovereignty is not lost. *See* INGRID DETTER, *THE INTERNATIONAL LEGAL ORDER* 484-85 (1994). While the pure ability to "retrieve" sovereignty may exist, the idea fails to take in the societal cost of actually retrieving them. If the cost is excessive, in terms of money or even through the use of military power, the state may not be willing to pay the price. If it is not, then the political reality is that the sovereignty has been lost for all practical purposes, despite the existence of any pure right of retrieval.

of maintaining airspace sovereignty was important with the understandable perceptions that commercial freedoms of the air would only benefit the world's air powers.

As one of the territorial aspects of sovereignty, control over territorial airspace will continue in many states until the economic benefit of evolving to a different system is apparent. Once this happens, movement away from the absolute sovereignty model will continue in proportion to the ability of the states to implement aviation security systems. It will continue to be a slowly evolving process with airspace economics on one side of the scale and the aviation security on the other. The problem of creating international norms of aviation security agreeable to all states will prevent wholesale evolution away from absolute airspace sovereignty. This will continue for most states until the economic benefits of free and open airspace outweighs the benefits of asserting absolute airspace sovereignty. Once that occurs, many states will be readily willing to implement aviation security rules that will give other states the comfort needed to continue moving towards new concepts of airspace sovereignty. Many barriers obviously remain. However, in states where economic pressures to change have been greatest, namely the EU and the United States, derogation of airspace sovereignty has occurred, though it is manifesting itself in different ways. The solution devised by the EU clearly demonstrates that aviation security and state sovereignty over airspace are separable. This will prove very difficult to overcome in the United States after September 11. Nevertheless, if security concerns can be addressed, the economic benefit of moving further away from the prescriptions of absolute airspace sovereignty will drive further change, albeit slowly. Despite problems, the development of the airspace law has proved a promising prospect in redefining the traditional ways states view sovereignty. What

happens next remains to be seen, but whatever it is, airspace law will continue to be a pivotal feature in the continuing development of international law.